



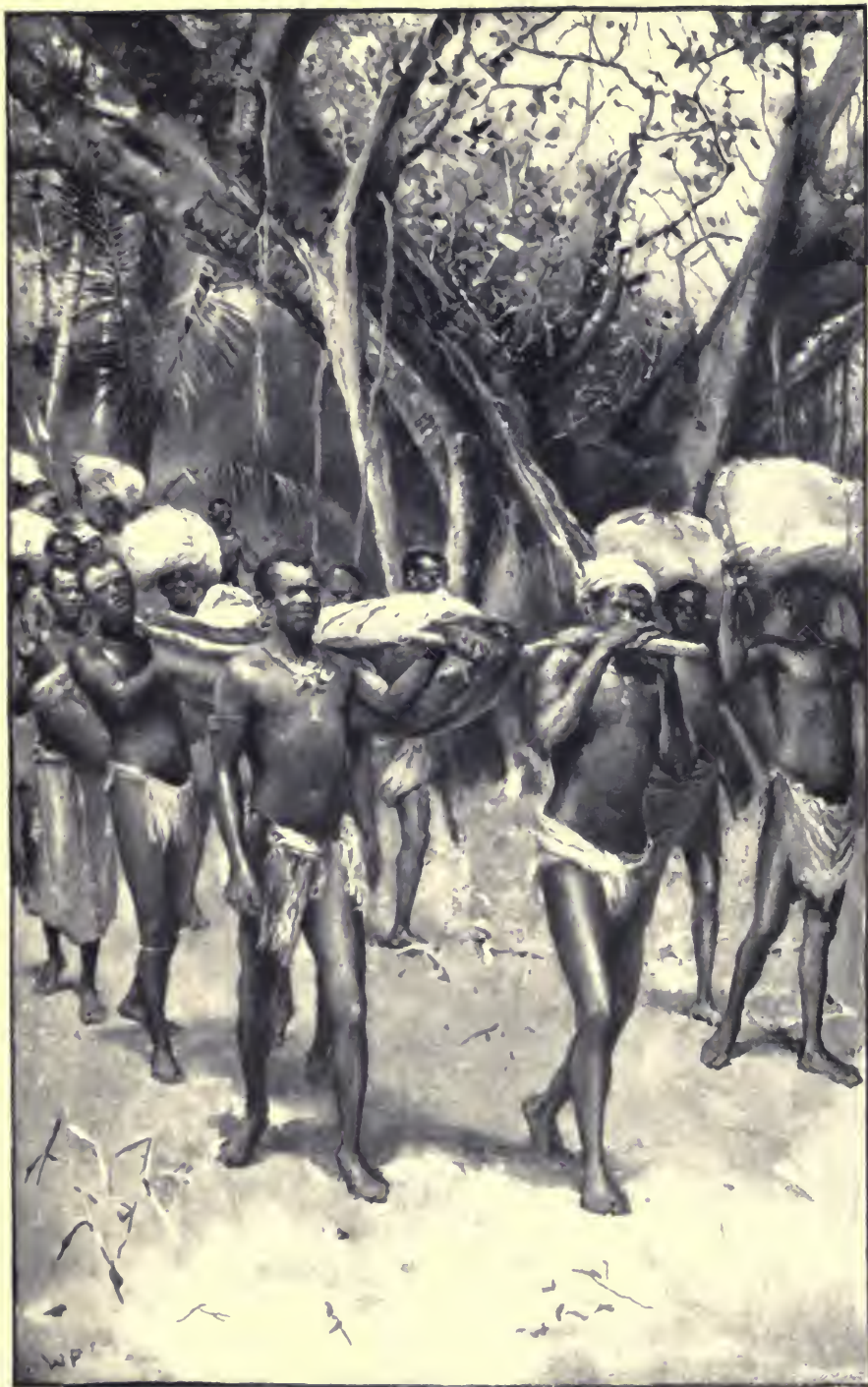


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THE BRITISH EMPIRE

IN THE

NINETEENTH CENTURY



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THE FOLLOWERS OF DR. LIVINGSTONE CARRY HIS EMBALMED
BODY TO THE COAST.

THE FOLLOWERS OF DR. LIVINGSTONE CARRY HIS EMBALMED BODY TO THE COAST.

In the year 1867 news reached Europe that Dr. Livingstone, the great African traveller, had been killed by the natives of the interior. This story, however, remained unconfirmed; and it was not until November, 1871, that Henry M. Stanley, at the head of a search expedition, found the traveller in good health at Ujiji. In March of the following year Stanley made for the coast, and Livingstone started on a journey for the purpose of determining the course of the river Lualaba. He met with great difficulties, especially from floods, but he still persevered in his explorations until he was struck down by dysentery. From this disease he ultimately died. Then his faithful followers embalmed the body in the best way they could, and carried it to Zanzibar in spite of many hindrances. From there it was brought to England and laid in Westminster Abbey, in April, 1874.



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THE BRITISH EMPIRE

IN THE
NINETEENTH CENTURY

ITS PROGRESS AND EXPANSION AT HOME AND ABROAD
COMPRISING A DESCRIPTION AND HISTORY OF THE
BRITISH COLONIES AND DEPENDENCIES

BY

EDGAR SANDERSON, M.A. (CANTAB.)

AUTHOR OF "HISTORY OF THE BRITISH EMPIRE", "OUTLINES OF THE WORLD'S HISTORY"
ETC. ETC.

ILLUSTRATED BY ENGRAVINGS AND MAPS

VOLUME IV.



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OUR EMPIRE AT HOME AND ABROAD.

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HISTORY OF BRITISH PROGRESS IN THE NINETEENTH CENTURY.

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Archæological researches—Kirkdale Cave and Kent's Cavern—Discoveries of Roman remains—An ancient town unearthed—Classical and Biblical exploration in the East—Sir A. H. Layard and other explorers—The Palestine Exploration Fund. Travels in Africa—Bruce and Park—More recent African explorers—The work of David Livingstone—Lieutenant Cameron and H. M. Stanley—Exploration of the Nile basin—Speke, Grant, and Baker. Arctic exploration—Ross and Parry—Sir John Franklin—Expeditions to discover him—Captain M'Clure solves the North-west Passage problem—Discoveries of Dr. Rae and Captain MacClintock. Antarctic exploration.

IN Europe, apart from first ascents of Swiss mountains made by members of the Alpine Club, British research has been mainly directed towards archæology. The Society of Antiquaries of London was founded in 1751, and the Scottish Society in 1780. During the nineteenth century, provincial and local associations have been formed in vast number, and the tumuli and "barrows", or burial-places of prehistoric, early English, and Celtic people in Great Britain, along with ancient river-drifts of gravel, have disclosed much concerning mankind in the periods known as the flint age or stone age, the bronze age, and the iron age, the extinct animals of a very distant past, and the burial customs and way of life of our historic forefathers. In 1821, numerous remains of mammals of the Tertiary geological period were discovered in the Kirkdale Cave, in the north of Yorkshire, a recess about 80 yards in length, formed in oolitic limestone rock. The fossil-bones lying

in a deposit of mud, covered by stalagmite formed by water dropping from the roof, were carefully examined and fully described by Dr. Buckland, F.R.S., a geologist of some fame, who became Dean of Westminster. They were found to include remains of the hyæna, tiger, bear, wolf, elephant, rhinoceros, and hippopotamus, as well as of several other animals and some birds still living in these islands. At Kent's Cavern, near Torquay, in Devonshire, far more important discoveries were made. This curious recess, also known as Kent's Hole or Cave, is remarkable for the evidence which it has supplied as to the fact of human beings being contemporaneous in Britain with various mammals either extinct or no longer natives of this country. The visitor, entering the side of a small wooded limestone hill through a low narrow passage, 7 feet wide, and 5 feet high, finds himself in a cavern above 200 yards in length, surrounded by a labyrinth of smaller caves and winding corridors. The roofs are glittering with stalactites formed by the dripping of water heavily charged with lime, and the floor is covered with a shining and slippery coating of stalagmite, in sheets varying from five to twelve feet in thickness. At the end of the cavern is a pool of water, deep, dark, and cold. The existence of the cavern appears to have been known for ages, but it was not until 1825 that the place was visited by any scientific men. Early explorers, between the above date and 1865, found flint implements mingled with the remains of extinct animals. The British Association then took up the work of examining the deposits in Kent's Cavern, encouraged thereto by the results of exploration in a bone-cave near Brixham, on the opposite side of Tor Bay. The discovery of that place in 1858 had disclosed bones of the mammoth, rhinoceros, reindeer, horse, bear, hyæna, and other animals, along with palæolithic flint implements. At Kent's Cave, fifteen years' digging through successive beds of stalagmite, red earth, and *breccia*, or rock-fragments covered with deposits of carbonate of lime, laid bare fossils to the depth of twenty feet. Flint-tools and implements of bone, including a needle with a well-formed eye, a harpoon, and an awl, lay among bones of the lion, bear, rhinoceros, hyæna, Irish elk, reindeer, mammoth, badger, glutton, beaver, red deer, wolf, fox, and other animals. Amongst the other signs of human work were found perforated badger's teeth, probably used as

ornaments. Underneath the stalagmite in one part of the cavern was a dark layer, about four inches thick, chiefly composed of fragmentary charred wood. This was explained by the experts in such matters as the site of a hearth round which the cave-dwellers gathered to roast the bones of animals for the sake of their marrow. The length of time needed for the accumulation of these cave-deposits, with a due regard to their general character and structure, affords the clearest proof of the long existence of man in this country. The results of this exploration were, in 1883, laid before the British Association by Mr. M. W. Pengelly. Some very extensive explorations have also been made in unearthing architectural remains of the Roman period. Besides many isolated *villas*, or country-houses of Roman officials, and the discoveries made in the City of London, from time to time, in digging deep foundations for our modern massive and lofty warehouses and blocks of offices, whole towns have been and are being unearthed. In 1859, excavations made in fields at Wroxeter, a Shropshire village on the Severn, near Shrewsbury, began to reveal the important Roman town of Uriconium, on the great road known as "Watling Street". In the course of eight years, part of the wall, remains of streets, public buildings, and private houses were laid bare, with coins, objects in bronze, and stucco covered with fresco-painting of wonderful freshness and excellent taste. For a real British Pompeii or Herculaneum we must go to the village of Silchester, in north Hampshire, near the site of the old Roman-British town "Caer Segont", or "Calleva". About 1875 the pickaxe and spade began disclosures which have shown more than $1\frac{1}{2}$ miles of the walls, an amphitheatre 50 yards by 40, the foundations of a forum, a *basilica*, a temple, and baths, with coins, rings, seals, broken pottery, and many other articles of use and ornament. The Society of Antiquaries, in 1890, took up the task of systematic exploration, and an area of above 100 acres was soon mapped out into square divisions, on which about forty labourers were set to the work of digging. In the summer of 1895, nearly forty acres had been explored, the ground floors of the Roman buildings being found at a depth of little more than one foot. The place was not destroyed by fire, or in any sudden or wanton fashion, but simply shrank and decayed by degrees, while the modern village arose half a mile away. Houses have been found in the "court-yard" style, with

buildings arranged round three sides of an interior space, and in "corridor" style, consisting of a long row of chambers, with a corridor on each side. The streets run straight from north to south. It is interesting to observe that in our cold, damp climate the Roman houses were much modified in form from those in the sunny region of Pompeii. In Britain, the dwellings were more closed in, and seldom had the large peristyles (open corridors) or roofless *atria* (halls or courts) of the southern abodes. At Silchester, also, it is found that nearly every room has under it a *hypocaust*, or arched chamber for a charcoal fire, with earthenware tubes to convey the heat. At Pompeii, the bath-rooms alone were thus warmed. Many objects in iron, bronze, bone, glass, and wood have been found. Nearly two-thirds of the 100 acres have yet to be examined. In the earlier days of the nineteenth century, Sir William Gell, a Fellow of Emmanuel College, Cambridge, devoted to antiquarian and geographical research, did much in examining the classical remains in Attica, southern Greece (the Morea), and the island of Ithaca, and wrote an excellent work on the antiquities and topography of Pompeii. In the Victorian age, Mr. J. H. Parker and Mr. Burn did excellent service in disclosure and description of some of the countless antiquarian remains at Rome.

In Asia, British research has been mainly devoted to various parts of the Turkish Empire, in the exploration of remains of ruined cities, and in attempts to identify localities and sites mentioned in the Biblical books and the Homeric poems. In Asia Minor, between 1838 and 1844, Sir Charles Fellows, a native of Nottingham, who devoted himself to exploration in the western part of that great peninsula, discovered the ruins of Xanthus, the capital of Lycia, and of fourteen other Lycian cities, with many architectural and other sculptured memorials of olden art. Many valuable objects in marble, and numerous casts, were obtained by Fellows for the antiquarian department of the British Museum. In 1837, Mr. W. F. Ainsworth, who had been, two years previously, physician with Colonel Chesney's Euphrates expedition, returned home through Kurdistan, the Taurus, and Asia Minor, making observations and discoveries afterwards embodied in his valuable *Travels in the Track of the Ten Thousand Greeks*. To Mr. C. T. Newton, of the British Museum, are due the discovery and acqui-

sition of many treasures of sculpture at Budrun, on the south-west coast of Asia Minor, the site of the ancient Halicarnassus. In 1859 Mr. Newton procured for the British Museum the remains of the famous Mausoleum, found and unearthed by him in the two previous years. Between 1869 and 1874 Mr. Wood discovered and excavated the site of the celebrated Ionic temple of Diana at Ephesus, in the west of Asia Minor, one of the noblest specimens of that style of Greek art. The name of Sir A. H. Layard stands highest among those of British explorers in the antiquarian line. In 1846 he began to work on the huge mound at Nimrud, on the banks of the Tigris, and there discovered the magnificent remains of four palaces of the ancient Nineveh. Thence came the famous bas-reliefs, cuneiform inscriptions, eagle-headed gods, and colossal winged human-headed lions and bulls to be seen at the British Museum. Mr. W. G. Palgrave, a son of Sir Francis Palgrave, the historian, made an adventurous expedition through central Arabia, in 1862-63, disguised as a native doctor, and further protected by his wonderful knowledge of Arabic. His *Narrative*, published in 1865, is one of the best works of the kind, and made known much concerning a region never visited previously by any living European. His journey led him through the midst of the fanatical Wahabis, a puritanical sect of Moslems. The daring, able, and eccentric Sir Richard Burton, who had served in Sind under Sir Charles Napier, was another traveller who made use of his almost perfect knowledge of Arabic in a journey as a disguised pilgrim. Dressed as an Afghan, he made his way to Medinah and Mecca, in 1853, entering both cities at the risk of his life, in event of his discovery as an unbeliever. It is with Palestine and Syria that, in this latest part of the nineteenth century, British investigation has been most concerned. Between 1838 and 1852 the researches in the Holy Land made by Mr. Edward Robinson, of Massachusetts, aroused great interest through his identification of numerous Biblical places with ruined towns and hill-forts throughout the country. Hence came, in 1865, the establishment of the Palestine Exploration Fund, and the very valuable and interesting work of survey performed chiefly by Major Conder, of the Royal Engineers. Immense results have been obtained towards the understanding of the Biblical narrative in historical times. The whole of western Palestine has been most minutely and accurately mapped, and

above 150 lost Biblical sites have been recovered, leaving only one-fourth of all the Bible names yet without identification. Nothing like the light now thrown upon the Scriptures by discoveries in geography, monuments, seasons, climate, flora, fauna, inscriptions, ruins, traditions, languages, customs, and legends, had been attained in all the centuries from the beginning of Christianity till the recent time of effective research.

During the period under notice, a geographical revolution has taken place in regard to Africa. In 1801, the map of Africa was almost a blank save in the regions forming a fringe around the coast. Curiosity, long baffled by difficulties arising from climate, native hostility, and the jealousy of Moslem holders of, or traders in, the inland territory, has at last had the veil removed, and a vast internal area of the continent has been more or less accurately mapped. Within ninety years, more has been done to open up Africa than in the whole previous course of history. Between 1768 and 1773, James Bruce, a native of Stirlingshire, starting from Cairo, went up the Nile to Syene, and thence made his way to Gondar, the capital of Abyssinia, whence he discovered the source of the Blue Nile, and, remaining about two years in the country, returned by way of Sennaar and the Assouan desert to Alexandria. In 1788, the African Association was founded in London, and then began the systematic, scientific exploration of Africa. With regard to the Abyssinian part of the continent, we may here mention that the British expedition of 1867, against the emperor Theodore, did much to extend our knowledge, and that, in 1840 to 1843, Dr. Beke, a native of London, made valuable explorations to the south, and mapped out above 70,000 square miles of territory. Mungo Park, a Scottish surgeon, sailed from England in 1795 under the auspices of the African Association. From an English post on the river Gambia, he made his way by July, 1796, to the river Niger, and, after tracing its easterly or upper course, he returned to the Gambia in June, 1797. He then returned to Scotland, married, and settled as a surgeon at Peebles, but his adventurous spirit would not let him rest, and in 1805 he took charge of an expedition for the government, to trace the course of the Niger down to the sea. Of forty-five men who started from our post on the Gambia, but seven remained when Park reached the Niger, and these, with the leader, either died of disease or were

drowned by the natives as they passed down the river in a canoe. One of Park's books, a nautical work, was afterwards seen by English travellers at the house of a native chief.

Between 1822 and 1824, extensive discoveries were made by Captain Denham, a "Peninsular" officer, and Lieutenant Clapperton, of the royal navy, a native of Annan, in Dumfriesshire. They were appointed by government to join Dr. Oudney, who was going to Bornu as British consul, on an exploring expedition. By way of Tripoli and Murzuk, they arrived at Lake Tchad in 1822. In a westward journey, Oudney died, and Clapperton and Denham, with separate parties, explored much of the Bornu and Houssa country. In 1825, after returning to England, Clapperton started from the west coast, on the Bight of Benin, with three other gentlemen, and his faithful servant, Richard Lander. Only Clapperton and Lander arrived at Sokoto, on a tributary of the Niger, the rest having quickly died of fever, and to this pest Clapperton himself succumbed in 1827, being the first European traveller that had crossed Africa from the Mediterranean to the Guinea coast. In 1826, Major Laing had made his way across the desert from Tripoli to Timbuctoo, but he was killed on his return, and his papers were lost.

The solution of the Niger problem had been reserved for those eminent African travellers, the brothers Richard and John Lander. In 1830, commissioned by the government to explore the lower course of the great western river, they sailed down the last 800 miles to the sea, proving that the Quorra and Niger were identical, and that the river falls by many mouths into the Bight of Benin. In 1834, Richard Lander died near the river-mouths, of wounds received from the natives. Dr. Barth, the next discoverer on our list, was a native of Hamburg, but he travelled at the charges of the British government, setting out from Tripoli, in 1850, with two companions, both of whom died on the way, to visit the Sahara and the country around Lake Tchad. Five years were employed by Barth on this work. Timbuctoo was visited, and much was learned concerning the Niger tributaries, the total area explored being about two millions of square miles, previously little known to Europeans. In 1861-62, Sir Richard (then Major) Burton, being consul at Fernando Po, on the west coast, made his way up the Cameroon Mountains, which he proved to possess a healthy climate,

well suited to Europeans suffering from the pestilential vapours of the lower regions.

In South Africa, the Dutch, in the latter half of the eighteenth century, had discovered the Orange river, and made their way beyond the 26th parallel of south latitude. Divers travellers and missionaries, after the British conquest of Cape Colony, added to our knowledge of the country, Campbell, a Scottish missionary, having settled, in 1812, the course of the Orange river. The Boers, after quitting Cape Colony about 1835, made rapid explorations towards the north. In the west, Mr. Alexander, in 1836-37, discovered parts of Namaqua-land and Damara-land, and by 1840 the country was known up to the 23rd parallel of south latitude. In 1851, Mr. Galton, starting from Walvisch Bay, in the south-west, made an extensive survey of the interior, where he found table-lands occupied by pastoral and agricultural peoples.

The record now reaches the illustrious name of Livingstone, who gave his life, in the fullest sense, to the work of African exploration in conjunction with his labours as a missionary. David Livingstone, born at Blantyre, in Lanarkshire, in 1813, worked as a child and youth in a cotton-mill. He got education such that, in manhood, he was fairly instructed in classics, books of travel, and medical science, and became, in 1838, a licentiate of the University of Glasgow. In 1840, he was despatched, by the London Missionary Society, to join the famous and devoted Robert Moffat in South Africa. His first labours lay for several years in the Bechuana territory, 700 miles from the Cape, where he gained a good knowledge of native character, languages, and customs. Marrying a daughter of Moffat, he moved northwards to the borders of the great Kalahari Desert, west of the Transvaal. The natives told him of a great lake to the north of this region, and in June, 1849, with Oswell and Murray, he started across the desert, and in August was paddled up a river into Lake Ngami, then first seen by European eyes. In 1851, going north-eastwards from the lake, over large salt plains, he came into a country of rivers, swamps, and fertile valleys, and at last reached and discovered the great river Zambesi, flowing south and then east from the centre of that part of the vast continent. In 1853, he made his way up the river in a canoe, and overland, beyond the upper courses of the western tributaries of the Congo, he reached Lake Dilolo, the source of one

arm of the Zambesi, and came out, in August 1854, on the west coast, at the Portuguese town of St. Paul de Loanda, the capital of Angola. Amid dangers and difficulties from fever, famine, and from hostile natives, whom he conciliated by an admirable mixture of firmness, kindness, and tact, Livingstone had passed through a country of rich fertility, well-wooded, watered by countless streams, and possessing great mineral resources. He then turned eastwards back to Linyanti, south of the Zambesi, passed down the river, by water and land, discovered the magnificent Victoria Falls, and in 1856 came out at Quillimane (Kilimani), on the northern mouth of the Zambesi, after winning the high distinction of being the first European that ever crossed the African continent from ocean to ocean in those latitudes. Near Lake Dilolo, on this last journey, he had discovered the dividing plateau, from 5000 to 7000 feet above sea-level, or watershed between Central and Southern Africa.

After an enthusiastic reception at home in 1857, Livingstone returned, in the following year, to Quillimane, in the Portuguese territory of Mozambique, as British consul, supplied by the government with means to continue his geographical researches. Accompanied by his brother Charles and by Dr. Kirk, the great Scottish explorer then entered on a journey extending over more than four years in the regions north of the lower Zambesi, and added to the maps an accurate representation of Lakes Shirwa and Nyassa. In 1862, Livingstone suffered a heavy blow in the death of his devoted wife. After another visit to England in 1864-65, he began, in the year 1866, his last series of achievements. His main object now was to determine the position of the watersheds in the interior of Africa, and, especially, to examine the country between Lakes Nyassa and Victoria Nyanza, which latter had been discovered, along with Lake Tanganyika, in 1858, by Captains Burton and Speke. Ascending the river Rovuma, which lies just below 10 degrees of south latitude, for two hundred miles, Livingstone struck out south-west, by land, to the southern end of Lake Nyassa, and then round its west side, and due north, to Lake Tanganyika, which he reached in the autumn of 1867. In coming thither he had crossed the well-wooded, richly-watered plateau mentioned above. It was at this time, and in 1868, that he discovered Lakes Liemba, Moero, and Bangweolo, with the head-waters of the Congo, there called the Luapula.

At this time occurred one of the most interesting episodes in the history of travel. News reached Europe, by way of Zanzibar, in 1867, that the great African explorer had been killed by the natives. Dr. Kirk, of Zanzibar, and Sir Roderick Murchison, in England, firmly refused to believe the story, which had been brought to the coast by Livingstone's native followers. They held that the tale had been invented for the purpose of accounting for their return, after they had, in fact, deserted him. A search-expedition found some natives who had seen the traveller some days after the time of his alleged death, and letters from him arrived which had been sent off four months later than that date. For three years, however, he was lost to the knowledge of civilized men, being unable to arrive at Ujiji, on the eastern side of Lake Tanganyika, owing to great floods in the country where he was. Exploring parties were kept at a distance by hostilities between native chiefs. It was not until November, 1871, that Mr. H. M. Stanley, searching for Livingstone, by special commission of the *New York Herald*, found him at Ujiji. Between 1869 and 1871, Livingstone had made extensive explorations to the west of Lake Tanganyika, and had discovered the Lualaba river, in the very centre of that part of the continent. After parting with Stanley in March, 1872, Livingstone started on a fresh journey, with intent to settle the course of the Lualaba, and to complete his explorations of the more westerly chain of lakes, and of the rivers which he had found flowing northwards from Lake Bangweolo. The heroic and adventurous Scot was, however, near the close of his great career. Struck down by dysentery, and unable to return to Ujiji, he died, on May 1st, 1873, in a hut which he caused his followers to build for him at Ilala, on the south shore of Bangweolo. His faithful attendants roughly embalmed his remains, and brought them to the coast, whence they were carried to England, and laid in Westminster Abbey in April, 1874.

To that last resting-place the body of Livingstone was despatched by the care of another illustrious African traveller, Verney Lovett Cameron, then a lieutenant in the royal navy. Born at Radipole, near Weymouth, in 1844, and entering the service in 1857, Cameron had served, in the east of Africa, in the Abyssinian expedition of 1868, and then in the suppression of the slave-trade, as an officer attached to the preventive squadron. Having become

familiar with the Swahili language and with the habits of the natives, he was selected by the Royal Geographical Society to command an expedition for the relief of Livingstone after his discovery by Stanley. His mission was to convey letters and supplies, and then, in the cause of geographical science, to follow any line of exploration which might be suggested by Livingstone. Cameron started from Bagamoyo, in Zanzibar, in March, 1873, and in August he met the band of followers who were carrying the body to the coast. It was difficult to arrive at a decision as to his duty in these painful circumstances. Resolving to press on to Ujiji, and, after recovering some of Livingstone's papers, to fulfil the geographical part of his charge, he first enabled Livingstone's men, by the supplies which he furnished, to complete their journey to the coast, and sent by them the instructions for the body's conveyance to England. By his subsequent journey, Cameron acquired world-wide fame, and the congratulations and rewards of every geographical society, with promotion to the rank of Commander, the Companionship of the Bath, the D.C.L. of Oxford, and other valuable distinctions. According to his own claims, he solved the question of the outlet of Lake Tanganyika, by discovering the river Lukuga, passing into the Congo basin; he also demonstrated that the Lualaba was the Congo and not the Nile, and he defined, in a broad sense, the limits and areas of the chief river-basins of Africa, tracing the watersheds of the Nile, the Zambesi, and the Congo. It is quite certain that, amid great difficulties, and through a country mostly unknown, Cameron made his way right through from the Indian Ocean to the Atlantic, coming out, in February, 1875, on the western coast at Benguela. This eminent explorer, in April, 1894, received fatal injury, in the prime of his days, by a fall from his horse near his residence in Buckinghamshire.

The name of Mr. H. M. Stanley will always be most honourably connected with African exploration, but, though he was born in Wales, we cannot fairly claim his achievements, being those of a citizen of the United States, as belonging to a history of purely British progress. It was in serving as special correspondent of the *New York Herald* for our Abyssinian expedition that Stanley first entered Africa. After his discovery of Livingstone, and some months' intimate association with him, he became himself fired with the zeal for exploration, but first he came to England and

published his marvellously successful book, *How I Found Livingstone*. In the earliest part of 1874, he was with Wolseley in the Ashantee campaign, again as correspondent for the *New York Herald*, and he returned to England just in time to be present at Livingstone's funeral in the Abbey. In November, 1874, starting from Bagamoyo with about 350 followers, Stanley made his way to the Victoria Nyanza, passed round the lake, and visited Uganda; he then mapped out the shores of Lake Tanganyika, and, entering the basin of the Congo, he finally settled the origin, course, and size of that mighty river by tracing it from Nyangwé, on the Lualaba (now proved to be the Congo), down to the sea. An immense area of the map of Africa was filled in by this journey, followed by the publication, in 1878, of *Through the Dark Continent*. The International African Association, with the King of the Belgians at its head, was then founded, and from 1879 to 1884 Stanley was engaged in establishing the government of the Congo Free State. During this period, he discovered Mantumba and some other lakes. His latest discoveries, between 1887 and 1889, described in the *Darkest Africa*, proved the existence of an immense tropical forest to the west of the lake country, in the north part of the Congo basin, and of a great snow-capped mountain, nearly 20,000 feet high.

Among the distinguished British travellers in Africa was Mr. Joseph Thomson, a native of Dumfriesshire, who went out in 1878, under the auspices of the Royal Geographical Society, with Mr. Keith Johnston's expedition to Lake Tanganyika. When Mr. Johnston died, in 1879, before the party had quitted the eastern coast, Mr. Thomson became the leader, and explored much of the country around Lakes Nyassa and Tanganyika, and was the first European who saw Lake Hikwa, which he finally named Lake Leopold, in honour of the King of the Belgians. Much territory was by him seen and mapped for the first time. In a second expedition for the same Society, in 1883-84, Mr. Thomson passed through Masailand, explored much territory between Mombaza and the north-east side of the Victoria Nyanza, and first mapped out the northern side of Mount Kilima-njaro, several table-lands in that region, and three lakes. He also travelled much in the Niger country and in southern Morocco.

The exploration of the basin of the Nile has been one of the

greatest feats of modern geographical discovery, solving a problem which had, for four thousand years, baffled human curiosity and given rise to much ingenuity of fabulous invention. The source of the White Nile, or western branch of the great mysterious river, could be guessed at when, in 1857, Dr. Krapf, a German missionary, heard from the natives that a large river issued from a lake at the foot of the Kenia mountains, and flowed northwards through another lake. The Victoria Nyanza was discovered in 1858 by Captain Speke, a native of Somersetshire, born in 1827, who served with the British army in the Punjab. In 1854, he was with Burton in the Somali country, and, three years later, the Royal Geographical Society sent them both out in search of the great equatorial lakes of Africa mentioned by Krapf. They were together when they reached Lake Tanganyika, but it was Speke alone who first reached the southern shores of the Victoria Nyanza, and proved that it was a separate water from the former. In 1862, Speke and Colonel Grant, a Scot, born at Nairn in 1827 and also an officer of the Indian army, found the river, at last, at the Ripon Falls, on the north shore of the Victoria Nyanza, and they followed it down to the Karuma Falls, but were then stopped by a native war. The next step was due to Sir Samuel Baker, a native of London, who passed his youth and early manhood in Ceylon. This eminent traveller, in 1861, had resolved, at his own cost, to discover, if he could, the source of the Nile, and in April of that year he set out from Cairo, in company with his newly-married wife, a Hungarian lady of great ability and most adventurous character. In June, 1862, they left Khartoum with an expedition of 90 people, a number of horses, asses, and camels, and three large boats. At Gondokoro they met Speke and Grant, who told them of the Victoria Nyanza discovery, and stated that the natives had mentioned another great lake which they called "Muta Nzigé". Baker and his wife went on their way, and on March 14th, 1864, they and their escort came out on the summit of some cliffs, whence they gazed on the lake in question, now named by Baker the Albert Nyanza. It was now established that the Nile issued from the Albert Nyanza, and the great river coming in from the east side of that lake, being traced up to the Karuma Falls discovered by Speke and Grant, proved that the White Nile issues from Lake Victoria Nyanza, 3800 feet above sea-level, on the equator, as its ultimate source, unless we then

trace the river to one of the streams entering that great inland sea on the south. We now conclude this part of our narrative by stating that Stanley, in 1888, discovered the lake called Albert Edward Nyanza, south of the Albert Nyanza, and, proving that the Semliki river joins those two lakes, in this way made the Albert Edward a secondary, south-western source of the famous stream.

We now take our flight from tropical heat to the extremity of cold, and deal with British Arctic or Polar exploration during the nineteenth century. Much of the travel and discovery in Arctic or sub-Arctic regions will be given hereafter in connection with the history of the North-West Territories of the Dominion of Canada. We are here concerned mainly with the attempts made by sea to solve the old problem of a north-west passage to Asia, an enterprise dating from Elizabethan days. In the earlier part of George the Third's reign, a revived zeal for maritime adventure and discovery in that direction sent Captain Phipps, afterwards Lord Mulgrave, to Spitzbergen. After some detention by masses of ice, he finally, in 1774, reached a north latitude of 80 degrees 48 minutes. In 1806, Captain Scoresby, sailing beyond Spitzbergen, arrived at 81½ degrees, and in later years, exploring Jan Mayen Island and the east coast of Greenland, he added much to our knowledge of the natural history and physical geography of the Arctic regions. A great promoter of Arctic research was the accomplished Sir John Barrow, a native of Lancashire in humble life, who became successively timekeeper in an iron-foundry, a Greenland whale-fisher, a teacher of mathematics, private secretary to Lord Macartney on his Chinese embassy, a traveller in South Africa, and for about forty years, from 1804 till 1845, with a very brief interval, a secretary to the Admiralty. He was the chief founder, in 1830, of the Royal Geographical Society, and his name is, in the Arctic regions, fitly commemorated by the designations of a Strait, a Cape, and a Point. At his suggestion, the Admiralty, in 1818, sent out two of our best-known Arctic voyagers, Captain (afterwards Sir John) Ross, and Lieutenant (afterwards Sir William Edward) Parry. Ross was another of our many enterprising Scots, son of a Wigtownshire minister, and born in 1777. Entering the navy as a "middy" of nine years, he served with ability and courage in the great war with France, and was

now chosen to explore Baffin Bay and to try for the north-west passage to Behring Strait. Parry, a native of Bath in 1790, entered the navy as a midshipman in 1806, and had some early experience in the Arctic regions in protecting our whale-fisheries against French attacks. He proved himself to be a skilful and scientific navigator. Ross and Parry, sailing from the Thames, made their way for some distance up Lancaster Sound, west of Baffin Bay, and returned to England in the early winter. In 1819, Parry, with the *Hecla* and the *Griper*, passed through Lancaster Sound, and discovered Prince Regent's Inlet, Barrow Strait, Wellington Channel, and Melville Island and Sound, thereby earning the Parliamentary reward of £5000 for the first navigator who, in those waters, should cross the limit of 110 degrees west longitude. At Melville Island, Parry was frozen up from November, 1819, to August, 1820, and then made his way home, the ice not permitting any further progress towards Behring Strait. Two other expeditions headed by Parry, between 1821 and 1825, were likewise baffled, and in 1827, the same energetic traveller closed his career in Arctic exploration by an unsuccessful attempt to reach the North Pole on sledges by way of Spitzbergen. On that journey, Parry reached 82 degrees 40 minutes north latitude.

In 1829, Ross again set forth on an expedition which lasted until 1833. The steamer in which the voyage was made was built and fitted out by the liberality of a London merchant, Sir Felix Booth. The land called Boothia Felix was now discovered, and the true position of the magnetic pole, to which the compass-needle points, was found to be on its western shore, in 70 degrees 5 minutes north latitude, and 96 degrees 43 minutes west longitude. The travellers remained in or near Boothia, generally frozen up, till the spring of 1832, when a vain attempt at extrication was made, and they were forced to undergo the hardships of another winter. At last, in August, 1833, having abandoned the ship, and taken to the boats, they were picked up by a whaler, which landed them at Hull. The leader was knighted, as Sir John Ross, and his nephew, who had also shared in the 1818 expedition, was rewarded with a post-captaincy.

We now come to the expedition of the famous and ill-fated Sir John Franklin. This illustrious explorer, born at Spilsby, in Lincolnshire, in 1786, entered the navy at an early age, and in 1801

fought under Nelson at the fierce battle of Copenhagen. We have already seen the young hero on the *Investigator*, with his relative Matthew Flinders, under whom he gained his remarkable skill in maritime surveying. On his way home to England, by way of Canton, after being wrecked on the Australian coast, he played his part in February, 1804, in one of the most notable achievements of our naval history, when Captain Dance, in the eastern seas, voyaging from Canton with a fleet of sixteen merchantmen, bravely fought and soundly beat a French men-of-war squadron under Admiral Linois, consisting of an 84-gun ship, two fine frigates, a brig and a corvette. The enemy were driven off in full flight, and the East India Company profusely rewarded every British officer, man, and boy on board the *Indiamen*, for saving merchandise valued at eight millions sterling. Franklin's next active service was as signal-midshipman on the *Bellerophon*, at Trafalgar, and in 1814, as First Lieutenant of the *Bedford*, in the attack on the Americans at Lake Borgne, near Mobile, he was wounded in capturing, by a hand-to-hand fight, one of the enemy's gun-boats. His land journeys in North America are elsewhere given. It was during these expeditions that Franklin displayed the admirable mental and moral qualities and resources that marked him out as the best possible leader in any enterprise for Arctic exploration. In 1822 he became post-captain and F.R.S., and in 1829 he received a knighthood and the gold medal of the Geographical Society of Paris. After serving from 1834 to 1843 as lieutenant-governor of Van Diemen's Land (Tasmania), where we shall meet him in another section of this work, Franklin returned to England, and was then appointed to the command of the expedition which was to cost him his life and to win for him a name which can never fade from the memory of Britons. The government had resolved on another attempt to discover a practicable north-west passage to the Pacific, by way of Lancaster Sound and Behring Strait. The gallant Franklin, now a veteran in his sixtieth year, quitted Greenhithe, on the southern shore of the Thames, on May 19th, 1845, in charge of the two ships of direful designation and sad renown, the *Erebus* and *Terror*, carrying 134 picked officers and men. On July 26th, the ships were seen by a whaler in Baffin Bay, and from that day they vanished for ever from the sight of Europeans, not an officer or man surviving to tell the tale. As month after month, and year

by year, passed away, Lady Franklin and other relatives of the voyagers waited and hoped, with expectation turning slowly to despair, and hope into mourning as for victims claimed by death. That noble lady, married in 1828, was Franklin's second wife Jane, a daughter of Mr. John Griffin.

The sympathy of the whole civilized world was aroused, and between 1848 and 1859 about twenty expeditions were despatched from England and the United States, by sea and by land, at the charges of Franklin's widow, as the event was to prove her to be, or of other private persons, or at the cost of one or other of the two governments. These numerous efforts, apart from the main object, greatly extended our knowledge of the Arctic regions. The *Prince Albert*, fitted out by Lady Franklin, brought home proofs, in 1850, that the explorers had, in April, 1846, been wintering near Beechey Island. It was in May, 1851, that the brave Lieutenant Bellot, of the French navy, joined another of Lady Franklin's search-parties, and during his explorations he discovered Bellot Strait, between Boothia Felix and North Somerset, on the parallel of 72 degrees north latitude, with granite shores rising up to about 1600 feet, and having, on the south side, the most northerly point of the continent of North America. In 1853, Bellot, whose statue is fitly placed in the garden of Greenwich Hospital, was drowned in an attempt to carry despatches over the ice to Admiral Sir Edward Belcher, commanding a luckless government expedition in search of Franklin. The search brought with it the discovery, at last, of the north-west passage. Robert M'Clure, born at Wexford in 1807, entered the navy in 1824, and, after serving in two Arctic expeditions, was sent out from Plymouth in 1850, to search for Franklin from the west, by way of Behring Strait. His ship, the *Investigator*, became ice-bound on its eastward course, and was rescued in the spring of 1851 by Sir Edward Belcher's expedition. M'Clure and his men finally reached England in 1854, by the Atlantic, after passing from the Pacific and so completing the passage all round from Behring Strait. The leader was rewarded by a knighthood, and by his share of the parliamentary grant of £10,000 for the exploit so long attempted in vain.

We now turn to the efforts and discoveries of that eminent Arctic traveller, John Rae, born at the Orkneys in 1813, and a student of medicine at Edinburgh, who became a doctor in the

Hudson Bay Company's service. In 1848 he left England on a search-party, and explored in small boats all the Arctic shores of North America, from the Mackenzie River eastward to the Coppermine River. In the spring of 1849, with but two companions, Dr. Rae started again eastward from the Coppermine, and traversed 1100 miles at an average rate of 25 miles per day, hauling his own sledge, and examining every turn and winding of the bays and inlets. When winter came on, the party made their way on snow-shoes, over nearly 1400 miles of ground, to Fort Garry, now Winnipeg, after travelling, in eight months, more than 5000 miles. Nothing had been seen or heard of the lost expedition, and Rae was, for a time, otherwise engaged. In 1853, he started northwards again in charge of a party despatched by the Company to complete the survey of the west shore of Boothia, and now, nine years after Franklin had left England, some clear intelligence bearing on the fate of his party was obtained. In July, 1854, writing to the Secretary of the Admiralty, Dr. Rae related how, in the previous spring, he had learnt from a party of Esquimaux (Eskimo) that, in the spring of 1850, about forty white men had been seen travelling southwards over the ice, dragging a boat with them, near King William's Land. They could not speak the native language, but made signs that their ships had been crushed by ice. Later on, Dr. Rae obtained, by purchase from natives, portions of watches, compasses, telescopes, guns and other articles, with some silver spoons and forks, which had belonged to members of the Franklin expedition, and had probably been picked up by the Esquimaux on the spot or spots where the hapless men had lain down and died of starvation and fatigue. There is no reason whatever to believe that they suffered any ill-treatment from the natives. Rae and his people, amply supplied with food by their guns and hand-nets for fishing, and with warm clothing and bedding, in the skins of the deer which they had shot, passed the winter of 1854 in comparative comfort, sheltered by snow houses. In October, 1855, Dr. Rae arrived in London, and the Admiralty, on sight of the relics brought, held that the painful problem had been solved, and paid the reward of £10,000 which had been, unknown to the explorer, offered for any trustworthy intelligence concerning the fate of Franklin and his men.

There was one person, however, most nearly concerned in this

tragic event, who could not rest satisfied with deductions from tidings derived from the Esquimaux, or even with the sight of objects that had, beyond doubt, gone out with people on the *Erebus* and *Terror*. The faithful and loving Lady Franklin desired to have certainty concerning the end of her husband and his followers, however terrible that certainty might prove to be. In July, 1857, the *Fox*, purchased and fitted out by Lady Franklin, sailed from Aberdeen under the command of Captain (now Vice-Admiral Sir Francis Leopold) MacClintock. This eminent navigator, born at Dundalk in 1819, entered the navy in 1831, and, becoming lieutenant in 1845, he had shared in the Franklin search-expeditions of 1848, 1850, and 1852, being instrumental in the deliverance of M'Clure and his comrades. On this new occasion, absolute proof of the fate of Franklin and his men was obtained. Many relics of the expedition were received from the Esquimaux in Boothia, and along the western and southern coasts skeletons and articles belonging to the ships *Erebus* and *Terror* were found. The consummation of evil signs came in 1859, when MacClintock found a document deposited in a cairn at Point Victory in King William's Land. Under the date of May, 1847, this writing stated that all were well, but that ice-obstruction had stayed progress towards the coast of America. There was, however, a postscript of mournful import, in the form of a marginal note written on April 25th, 1848, by Captain Fitzjames. This statement made known that Sir John Franklin had died on June 11th, 1847; that nine officers and fifteen men had also perished; that the ships, after having been beset by ice since September 12th, 1846, had been abandoned on April 22nd, 1848, three days before the date of writing, at a point 5 leagues N.N.W. of the cairn. The addendum also stated that 105 officers and men, under Captain Crozier, had landed at the point where the cairn was erected, in 69 degrees, 38 minutes N. latitude, and 98 degrees, 41 minutes W. longitude. We may conclude this narrative by recording that American expeditions, under Captain Hall, and under Lieutenant Schwatka of the United States army, found many other relics, and numerous skeletons scattered up and down, showing that the hapless men had succumbed, in their wanderings, to exhaustion caused by lack of food and intensity of cold. The bones of one of Franklin's officers, Lieutenant Irving, identified by objects found there-

with, were brought home and interred at Edinburgh. Many of the articles recovered from the Esquimaux or picked up by explorers are to be seen in the Naval Museum at Greenwich Hospital. Lady Franklin died in July, 1875, aged 83, and in the same year a monument to her husband was placed in Westminster Abbey. In closing this subject, we may notice that Sir John Franklin, though he did not in person proceed, like M'Clure, from ocean to ocean, was really the discoverer of the north-west passage, since his ships reached a point within a few miles of that which previous explorations had attained from the westward or opposite direction, by way of Behring Strait. It must be admitted that, be the credit of the discovery due here or there, it is absolutely useless for commercial purposes, the seas being almost always blocked with ice, and the opening of the Suez Canal having provided the long-desired speedy route to the east of Asia.

The fate of Franklin's expedition, along with deep sorrow for the devoted victims of the passion for Arctic exploration, aroused something like disgust in the public mind for the useless sacrifice of so many valuable lives, and many years elapsed before any British government proposed to employ public funds in that direction. The search-expeditions had caused the almost complete exploration of the Arctic coast of North America, and, geographically, there was nothing further to be learned in that quarter of the globe. In 1875, Captain (afterwards Sir George) Nares headed the government expedition composed of the steam-ships *Alert* and *Discovery*, and returned in 1876. One of the sledge-parties, under Captain Markham, reached a point nearer to the North Pole than any European had yet attained, in 83 degrees, 20 minutes north latitude.

In the great Antarctic Ocean, Captain Cook was the first navigator that went so far south as 71 degrees. In 1831, the regions called Enderby Land and Graham Land were discovered. The chief explorer in the Southern Seas was the accomplished Sir James Ross, whom we have seen in Arctic voyaging with his uncle, Sir John. This distinguished navigator and man of science, skilled in magnetism, meteorology, zoology, botany, and astronomy, and a member of many British and foreign learned societies, went out in 1839 as commander of an expedition composed of the two ships *Erebus* and *Terror* that were afterwards in charge of Franklin.

Between that date and 1843, he discovered the vast continent named Victoria Land or South Victoria, and sailed along the coast, within sight of its mountain ranges, from 7000 to 10,000 feet in height, as far as 78 degrees south latitude. At this point, the range ended in an active volcano, 12,000 feet high, which Ross named Mount Erebus. A sister volcano was designated Mount Terror. The southern progress of the voyage was blocked by a huge wall of ice from 150 to 200 feet in height. Along this, the expedition proceeded eastwards for 300 miles. No land animals or vegetation could be seen, while oceanic birds, whales, seals, and grampuses were abundant. In 1874, the *Challenger*, the only steam-ship that ever visited those waters, crossed the Antarctic Circle, and her staff made many interesting and valuable observations in various departments of natural science. The voyage of that vessel, leaving Sheerness in December, 1872, and returning to Spithead in May, 1876, after passing over about 70,000 nautical miles, or above 80,000 land miles, was by far the most important scientific exploring expedition that ever left the British shores. In her wandering circumnavigation of the globe, the *Challenger*, elaborately fitted with every requisite for marine investigation, from the sea-surface to the ocean-floor at all depths, steamed and sailed by way of Madeira, the West Indies, Nova Scotia, Bermudas, the Azores, Bahia, Cape of Good Hope, Kerguelen Island, Melbourne, Hong Kong, Japan, Valparaiso, Magellan's Strait, Monte Video, and Vigo, to Portsmouth. Her scientific *Reports*, edited by Sir Charles Wyville Thomson, the eminent Scottish zoologist, and Dr. John Murray, are a vast storehouse of new material in deep-sea exploration. Before passing to a new chapter, we may state that the important subject of Australian travel will be dealt with in another section of this book.

CHAPTER XXIII.

SCIENCE.

Astronomy—Researches of Francis Baily and Sir John Herschel—Sir George Airy and other eminent astronomers—Mrs. Somerville. Chemistry—Black, Cavendish, and Priestley—Dalton, Davy, Faraday, &c. Electricity—Clerk-Maxwell, Lord Kelvin, Tait, &c. Botany—Robert Brown, Professor Balfour, Sir William and Sir Joseph Hooker. Physics and pure mathematics—Sir David Brewster, Arthur Cayley, Sir William R. Hamilton, J. P. Joule. Comparative philology—James A. H. Murray, Sayce, Sir Henry Rawlinson, &c. Ethnology—Dr. Prichard, Latham, and Sir William Flower—E. B. Tylor. Natural history—William Kirby and Miss Ormerod—Gould, Owen, F. M. Balfour, Huxley, and Tyndall. Applications of electric power—Electro-plating. Geology—William Smith—Sedgwick and Murchison—Hugh Miller and the brothers Geikie—Sir Charles Lyell—Alfred R. Wallace and Charles R. Darwin. Writers on mental science, philosophy, or metaphysics.

It is well to observe at once that the scope of this work precludes any attempt to deal with the encyclopaedic subject of the progress of science in the nineteenth century. That progress has been positively portentous in its amount; a complete revolution in knowledge and belief on many points of great importance. We can here only refer to some of the chief departments of advance, and mention some of the most eminent British names connected therewith. On the practical side of science, that which closely concerns the welfare, in health and comfort and happiness, of the human race, these pages already contain a large amount of information. It is certain that the British public owe infinitely more to steam, electricity, and sanitary progress, including the improvements made in medical and surgical treatment, than to the *Spectrum Analysis* revealing the presence of certain metals in the sun, or to the discovery of scores of new minor planets, or to the demonstration that we have all been wrong in our belief as to the distant origin of the human race and other animals. The faculties employed, the methods of investigation used, the results attained, in these and other scientific discoveries of this ultra-scientific age, are alike admirable, but their abstruse nature removes them from the sphere of popular treatment. The extent of the advance of knowledge in scientific matters during the Victorian age alone may be estimated by the fact that whereas, at the beginning of the period, there were energetic men, of great and varied mental powers, such as Dr. Whewell, the famous "Master of Trinity", Cambridge, and

author of the *History of the Inductive Sciences*, who might be fairly said to have mastered all departments of physical science, the hardest and ablest worker at the present day must content himself with great proficiency in a single division or even subdivision. We may illustrate our meaning from mathematics by taking a wider range of years, and stating the certainty that Sir Isaac Newton, one of the very greatest intellectual men of all time, could, with his amount of mathematical and scientific knowledge, attain but a low position in the Tripos at Cambridge. Many of the facts of science, the working methods, the formulae, would be wholly unknown to the illustrious man who wrote the *Principia*. Starting from the same point of attainment as his competitors, a Newton would, of course, be the Senior Wrangler of his year, with the second wrangler some thousands of marks in his rear.

Taking up astronomy first, we may note that the country of Sir Isaac Newton, Halley, and Flamsteed has well maintained her place, both as regards discovery and exposition, in this grand department of physical research. Francis Baily, a native of Newbury, in Berkshire, in 1774, was first noted as a writer of books on banking and life assurance. Gaining a large fortune as a stockbroker, he retired from business in middle life, and about 1825 he gave himself up to the study of astronomy with such ability and success as to win high recognition from many learned societies both of Great Britain and of foreign lands. He had a chief part in founding the Royal Astronomical Society; he improved the *Nautical Almanac*; and he produced the Star-catalogue which has had a vast effect upon the development of sidereal astronomy. His death in 1844 was a real loss to the devotees of his favourite pursuit, in the history of which his memory is preserved by the name of the phenomenon called "Baily's Beads", first fully described by him, being the discontinuous and broken appearance of the edge of the sun's disc, just prior to and succeeding the moment of complete obscuration during an eclipse. Sir John Herschel, the only son of Sir William Herschel, the discoverer, in 1781, of the planet called Georgium Sidus, or Uranus, was born at Slough, near Windsor, in 1792, and in 1813 he gained the highest mathematical distinctions at Cambridge as Senior Wrangler and First Smith's Prizeman. Devoting himself to astronomy, he discovered, by 1832, above 500 fresh nebulae or clusters of stars, and between 3000 and 4000 double

stars. From January, 1834, to May, 1838, he was engaged in a series of most valuable telescopic surveys of the heavens at the Cape of Good Hope, conducted wholly at his own expense. On his return to England, honours were showered upon the man who had not only done so much for his own department of science, but had given a great impulse to meteorology by suggesting the method of taking simultaneous observations at many different stations. In 1848, Herschel became President of the Royal Astronomical Society, and did further service by his excellent *Outlines of Astronomy*, and his researches on the undulatory theory of light, in chemistry, and in photography. Sir George Airy, born at Colchester in 1801, was another Senior Wrangler (1823) at Cambridge, and held the post of Astronomer Royal from 1836 until his retirement in 1881. His mathematical abilities were of the highest order, and his services to astronomy, at the Cambridge and the Greenwich Observatories, included the introduction of new or improved instruments and methods of calculation. He was also greatly distinguished in connection with meteorology, magnetism, and photography, and he became one of the foremost men of the century in physical science. His *Ipswich Lectures on Astronomy* is a popular work of the greatest merit. John Couch Adams, Senior Wrangler in 1843, gained immense fame by his independent detection, about the same time as the French astronomer, Leverrier, of the position in the heavens of a yet undiscovered planet, first seen, in 1846, by Dr. Galle of Berlin, and named "Neptune". Mr. Adams, investigating the cause of irregularities in the motion of Uranus, traced them to the influence of another yet unknown heavenly body, whose position he calculated to be within three degrees of its actual place. Leverrier's assigned position was within one degree of the truth, but Adams' work was completed at a somewhat earlier date, and the merits of the two men have been held to be equal. Adams, in 1858, became Lowndean Professor of Astronomy at Cambridge, a post which he held until his death in 1892.

The Earl of Rosse, an Irish peer, who died in 1867, won great and just renown as a practical astronomer by the completion, in 1845, of his telescope, constructed at a cost of £30,000, and mounted in his park at Birr Castle, in King's County. This magnificent instrument, of the reflecting class, is 54 feet long, with a tube of 7 feet in diameter, and a speculum, or mirror, of 72 inches aperture, weighing

three tons. The whole apparatus has a weight of twelve tons. Its astronomical services include the discovery that certain nebulae, or white cloudy appearances in the sky, are clusters of distinct stars; the detection of many binary and trinary, or double and triple stars, with members revolving round a common centre of gravity; and a much clearer view of the surface of the moon. The eminent owner, who was President of the Royal Society from 1848 to 1854, himself devised the means of casting the speculum, far surpassing all others in size and efficiency. Mr. J. R. Hind, born at Nottingham in 1823, was early devoted to astronomical science, and became, in 1845, after four years' experience as assistant at Greenwich, the principal observer at Mr. Bishop's, in Regent's Park, London. Mr. Hind's successful labours made that abode of celestial observations famous in the discovery of ten minor planets, or planetoids, and the calculation of the orbits and declination of above seventy planets and comets. In 1853 he became editor of the *Nautical Almanac* and in 1880 was elected President of the Royal Astronomical Society.

Mr. J. N. Lockyer, born at Rugby in 1836, was chosen F.R.S. in 1869, and then became Lecturer in Astronomy at the South Kensington Normal School of Science. Besides his great merits as an astronomical expositor, both in speech and writing, Mr. Lockyer is highly distinguished for his researches into the chemical constitution and physical condition of the sun, stars, and nebulae, a department of science belonging wholly to the latter half of the nineteenth century. The instrument called a spectroscope, due to the discoveries and ingenuity of the German scientists Fraunhofer and Kirchhoff, and of the eminent Scottish natural philosopher, Balfour Stewart, has proved that many of the heavenly bodies are composed of material like that of the earth, and has demonstrated, as regards the sun especially, its gaseous eruptions, the atmosphere in which it exists, and its own physical formation. Astronomy has been thereby connected with sciences previously regarded as belonging solely to our own planet, such as magnetism, electricity, geology, and chemistry. Mr. William Huggins, born in London in 1824, who was elected F.R.S. in 1865, has long had a private observatory at Tulse Hill, in the southern suburbs of London, and has been greatly distinguished by his researches, through spectrum-analysis, into the physical nature of the sun, stars, planets, comets, and

nebulae. In 1874 he was elected a corresponding member of the Paris Academy of Sciences, and from 1876 to 1878 he was President of the Astronomical Society.

Sir Robert S. Ball, F.R.S., eminent as an observer and, especially, as a most able and attractive expositor of astronomy, was born in Dublin in 1840, and studied at Trinity College, or Dublin University. In 1865 he became astronomer to Lord Rosse at Parsonstown (Birr), and in 1874 Professor of Astronomy at Dublin and Astronomer-royal for Ireland. His *Story of the Heavens* is an excellent book for popular use. The University of Cambridge gave the most ample recognition to Sir R. Ball's merits in appointing a man not of her own training to succeed the lamented Mr. Adams, in 1892, as Lowndes' Professor of Astronomy, a step without precedent, we believe, in the whole history of that renowned abode of mathematical and astronomical science.

Bare justice, and no courtly deference to a sex which, until these later days of salutary feminine advance, rarely meddled with such subjects as physical science, demands the eulogistic mention of that charming veteran student and writer, Mrs. Mary Somerville. Scotland, to which we "Southrons" should grudge the honour, gave birth to this daughter of Admiral Fairfax, in December, 1780, in the manse, at Jedburgh, of her uncle, Dr. Somerville. In 1812 she married his son, Dr. William Somerville, of the army medical board, a gentleman who in all ways favoured her devotion to mathematical and natural science. In 1816, they settled in London, and Mrs. Somerville, quickly known in society by her intellectual gifts and attainments, already including mathematics, Latin, Greek, and much besides, became famous, in 1830, through her *Mechanism of the Heavens*, a work founded on the *Mécanique Céleste* of the great French astronomer Laplace. She was now chosen as honorary member of the Astronomical and many other learned societies. In 1835, Mrs. Somerville published *The Connection of the Physical Sciences*, a book that has been rendered into all the chief languages of Europe. Her other writings deal with molecular and microscopic science, and physical geography. Many of the later years of her useful, distinguished, and happy life were passed in successive residence at Florence, Rome, and Naples, the last of which cities saw her death, at the age of 92, in the third year of Italy's existence as a completely free and united nation.

In the latter half of the eighteenth century, the science of chemistry, in the British Isles, owed much to Black, Cavendish, and Priestley. Joseph Black, born at Bordeaux, in 1728, of Scottish parents, and educated at Glasgow University, became lecturer on his special subject there in 1756, and, ten years later, he filled the Edinburgh chair. He was the discoverer of the nature of carbonic acid gas, and evolved the theory of "latent heat" which led to James Watt's fruitful investigation of steam as a motive force. Henry Cavendish, a grandson of the second Duke of Devonshire, was born at Nice in 1731, and studied at Cambridge. Devoting his whole life, which ended at Clapham, near London, in 1810, and the resources of an ample fortune, to the study of natural philosophy, he attained the highest rank in that line, and was specially noted for the beauty, accuracy, and finish of his experiments. To him chemistry owes the discovery of the properties of hydrogen, and of the composition of water. He was the founder, in fact, of pneumatic chemistry, or the scientific investigation of gaseous fluids. Joseph Priestley, born near Leeds in 1733, and living till 1804, made great advances in the path traced by Cavendish. In 1774 he discovered oxygen, and investigated the nature of various oxides, acids, and gases. We now pass into the nineteenth century, and in William Hyde Wollaston we name one of the ablest and most famous English natural philosophers. Born at East Dereham, in Norfolk, in 1766, and educated as a physician at Caius College, Cambridge, he abandoned his profession in 1800, and made all his chemical discoveries during the period now under review. He found out the existence of phosphate of lime and other substances; devised a method of rendering platinum malleable, and in this and other ways made valuable application of chemistry to the industrial arts. Wollaston also won distinction in optics by inventing the reflecting goniometer, an instrument for measuring the angles of crystals; by discovering the dark lines in the solar spectrum, and by observations on single and double refraction. One of the greatest chemical discoverers of this or any other country was John Dalton, born in Cumberland in 1766. After teaching physical science in Manchester, writing much on meteorology, and first describing the nature of colour-blindness, he published in 1808-10, his *New System of Chemical Philosophy*, which announced the famous Atomic Theory and placed chemistry on a truly scientific

basis. He also rendered an immense service to the prosecution of chemical inquiry by creating the system of symbolic notation which renders the nature of chemical compounds and processes easy to understand and to recollect. Dalton died in 1844, after receiving many British and foreign distinctions. His statue, by Chantrey, adorns the entrance of the Royal Institution in Manchester.

Sir Humphry Davy, born in 1778 at Penzance, in Cornwall, has already been named in connection with the safety-lamp used by coal-miners. Early distinguished in chemical research, Davy became, in 1801, lecturer at the Royal Institution in London, and quickly rose to fame through the eloquence of his discourses, and his varied, brilliant, and novel experiments. His great discovery was that concerning the true nature of earths and alkalies as substances compounded of metallic bases with an admixture of oxygen. His lectures on agricultural chemistry (1803–1813) were of great service to scientific tillage. To his experiments with electricity in decomposing various earths were due the discovery of potassium, sodium, calcium, magnesium, and other new metals. Invested with various honours in his native land, Davy was welcomed in France, by her scientific men, with the utmost distinction while the two countries were at war. It was not the least of Davy's services to his country and to science that he discovered the wonderful abilities of Michael Faraday, and made him his assistant in the laboratory at the Royal Institution. Sir Humphry, created a baronet in 1818, succeeded Sir Joseph Banks, on his death in 1820, as President of the Royal Society. In 1829 he died at Geneva, a member of almost every scientific body throughout the world, and was honoured by the Swiss government with a public funeral, at which Cuvier, the illustrious comparative anatomist, declared Davy to hold the first rank among the chemists of that or any other time.

Thomas Graham, born at Glasgow in 1805, became Professor of Chemistry there in 1830, and in 1837 was appointed to the similar post in University College, London. In 1855, he succeeded Sir John Herschel as Master of the Mint, and in 1869 he died in London. Graham was specially distinguished by his discoveries as to the diffusion of chemical gases, their absorption by liquids, and on other branches of chemical composition and modification. In Faraday, born near London in 1791, we have one of the most illustrious English physicists. Early addicted to electrical and

other science, he succeeded Davy, in 1827, as Professor of Chemistry at the Royal Institution, and became as famous as his master for charming experiments, and for the perfect lucidity and happy expression of his scientific expositions. The profundity of his knowledge, as implicitly exhibited in his Christmas lectures to the young, and in such works as his *Lectures on the Chemical History of a Candle*, was veiled, to the unlearned, by the simplicity of his style. It was in electricity that Faraday was at his greatest, as displayed in the researches published, during more than forty years, in the *Philosophical Transactions*. None but a scientist in this subject can form any idea of the marvellous range, depth, and value of this great man's electro-magnetic discoveries, dealing both with the theory and the practical application of the force which has done and is doing so much for mankind. He died, in 1867, at Hampton Court.

Among eminent electricians, we may here mention Mr. Warren De la Rue, born in Guernsey in 1815, also distinguished in astronomical photography; Mr. James Prescott Joule, whom we shall see again shortly, and Mr. James Clerk-Maxwell, born at Kirkcudbright in 1831, Second Wrangler and bracketed as Smith's Prizeman at Cambridge in 1854, and, after holding professorships in natural philosophy at Aberdeen and in King's College, London, Professor of Experimental Physics in Cambridge University from 1871 until his death in 1879. This eminent man's *Electricity and Magnetism*, published in 1873, made an epoch in the history of electrical science. In optics and dynamics, and on gases and heat, he also displayed extraordinary ability and knowledge. Lord Kelvin (so long famous as Sir William Thomson) has been already dealt with in his early career, and in connection with telegraphy. His practical work in electricity, as a deviser of scientific apparatus of the utmost accuracy, delicacy, and utility, is of the very highest order of merit, while in pure science, such as thermodynamics, hydrodynamics, magnetism, electricity, and the doctrine of dissipation of energy, he has displayed powers rarely equalled in this last century of time. General Sir Edward Sabine, of the Royal Artillery, born at Dublin in 1788, and dying at Richmond, near London, in 1883, was greatly distinguished in terrestrial magnetism, and it was through his influence that the Admiralty instituted magnetic observatories in various parts of the world. Sabine became F.R.S.

in 1818, and was President of the Royal Society from 1861 to 1879, after being for many years secretary, and, in 1853, President of the British Association, whose Reports, as well as the *Philosophical Transactions*, contain most important information on his special subject. Another eminent natural philosopher is Mr. Peter Guthrie Tait, a native of Dalkeith in 1831. After some study at Edinburgh, he became an undergraduate at Cambridge, and in 1852 came out as Senior Wrangler and First Smith's Prizeman. Eight years later, he was appointed to the chair of Natural Philosophy at Edinburgh, where he became, in 1879, general secretary of the Royal Society. His text-books on the higher mathematics are well known, and, in conjunction with Sir W. Thomson (Lord Kelvin) he has written a *Treatise on Natural Philosophy*. Tait's original scientific work has been mainly concerned with heat and electricity, and he is noted for his ability in the lucid exposition of abstruse and difficult matters. Mr. Balfour Stewart, F.R.S., already seen in connection with the spectroscope, was born at Edinburgh in 1828, and studied at the Universities both of St. Andrews and his native city. Like the astronomer Baily, though at an earlier age, he left business for science, and in 1859 became director of the Kew Observatory. In 1870, he was appointed Professor of Physics at Owens College, Manchester, and died in 1887. His researches on heat, meteorology, and terrestrial magnetism were of very great value. Sir George Gabriel Stokes, F.R.S., was born, in 1819, in county Sligo. In 1841, he attained the highest mathematical honours at Cambridge as Senior Wrangler and First Smith's Prizeman, and, eight years later, he was appointed Lucasian Professor of Mathematics. In 1885, after being for over thirty years secretary of the Royal Society, he was elected President for the five years' term. His powers as a mathematician and natural philosopher are of the highest rank, being specially displayed in connection with hydrodynamics and with the theory of light. His efforts have been very valuable in developing at Cambridge the study of natural science.

In botany, Great Britain can show, during the century, some names of high distinction, especially in the line of geographical botany. As a matter of great interest on the subject of plants, though the discovery is not due to any British student, but to the German botanist Sprengel, Professor at Halle University, in Prus-

sian Saxony, from 1797 to 1833, it has been established that the fertilization of flowers is effected by the conveyance of the pollen, from one flower to another, partly through the action of the wind, but chiefly through the agency of insects, especially of bees. To these little creatures do we mainly owe the beauty of our gardens and the sweetness of our fields, in countless varieties of colour, scent, and form. Robert Brown, a native of Montrose in 1773, studied for medicine at Edinburgh University, but turned his special attention to botany. In 1798, he became known, in London, to Sir Joseph Banks, and in 1801 went out as naturalist on Flinders' expedition to the Australian coast. In 1805, Brown returned to England with about 4000 species of Australian plants, largely unknown to botanists. From this time, by his numerous and able writings, he began to attain the high distinction which caused Humboldt to style him the first of living botanists. In 1827, Brown became head of the botanical department at the British Museum, which was enriched, at the same time, by the fine library and collections of Sir Joseph Banks, for many years already under his charge. The eminence of Brown in his special line of research is marked by his election, in 1833, as a foreign associate of the French Institute, and above all, by Darwin's praise of his wonderful knowledge, and of his minute and accurate observation. This distinguished man died in London in 1858. Mr. John Hutton Balfour (1808-1884), a native and graduate of Edinburgh, Professor of Botany at Glasgow University (1841 to 1845) and then at Edinburgh (1845 to 1874), did much to improve the Royal Botanic Garden in the Scottish capital, and promoted his favourite study by his able lectures and writings. George Bentham, born near Portsmouth in 1800, turned from the law to botany with such vigour and success that in 1828 he was a Fellow of the Linnæan Society and an eminent writer on and collector of specimens. In 1854, his accumulated treasures were presented to the Kew Museum, and all the rest of Bentham's life, thirty years, was there spent in arranging and describing British and foreign flora. His *Genera Plantarum*, completed with the aid of Sir Joseph Hooker, and produced between 1862 and 1883, is practically exhaustive of botanical knowledge up to date. No account of British botanists of the nineteenth century can omit the Hookers, father and son, whose name has been so

intimately associated with Kew Gardens for so many years that it is hard to think of that charming region by the Thames without its learned and vigilant director. The elder, Sir William Jackson Hooker, born at Norwich in 1785, was a devotee of nature from his youth upwards, and became in 1820 Professor of Botany at the University of Glasgow. In 1841, he was placed in office at Kew Gardens, and discharged his important duties with the utmost zeal, vigour, and success. The place was vastly extended and improved, and the energetic and eminent Kew director became a sort of "Botanical Minister" for the British Isles, wielding great influence in his own subject as to appointments throughout the empire. On his death in 1865, he was succeeded at Kew by his son, Sir Joseph Dalton Hooker, who had for ten years been his assistant-ruler. This worthy son of his sire was born at Halesworth, in Suffolk, in 1817, and in 1839 became M.D. of Glasgow University. He shared in the Antarctic expedition, under James Ross, above described, and was afterwards for three years, studying botany and gathering new plants, including specimens of rhododendrons, in the Himalayas. Some new varieties of the latter beautiful shrubs were by him naturalized in this country. In 1871, he made the first European ascent of Mount Atlas, in Morocco, whither he had gone to gather plants. Among his many valuable works are those on the flora of the Antarctic regions, Tasmania, and New Zealand. Sir Joseph Hooker has been President of the British Association (Norwich, 1868,) and of the Royal Society (1873-78). The value of Kew Gardens, not only to students of botany, but also to the commercial world, under the management of the two Hookers, was mentioned in an early part of this section of our work.

Sir David Brewster, born at Jedburgh in 1781, was one of the greatest British natural philosophers in the first half of the nineteenth century. Early devoted to optics, he was the inventor of the kaleidoscope, and the improver of the stereoscope, and, in the interests of general science, he had a main share in founding the British Association. His merits were recognized by the fellowship of the Royal Society and the membership of the French Institute, of which he also became, in 1849, one of the eight foreign associates. He made numerous discoveries in optical science, and was instrumental in causing the adoption of the dioptric system of illumination for British lighthouses. His energy, during a life pro-

tracted till 1868, found vent in countless papers on scientific subjects furnished to societies and reviews, and in *Lives of Newton, Galileo*, and other great men of his own class.

In pure mathematics, Cambridge and Dublin Universities have each produced one man of the highest order of genius. The late Mr. Cayley, born at Richmond, Surrey, in 1821, was Senior Wrangler and First Smith's Prizeman in 1842, becoming in 1863 the first Sadlerian Professor of Pure Mathematics at Cambridge, and in 1875 an honorary fellow of his old college, Trinity. In 1883 he was President of the British Association, and was known to a select body of men throughout Europe, and in the United States, being the few capable of appreciating his merits, as a master of the abstruser methods of mathematical calculation. Sir William Rowan Hamilton, born in Dublin in 1805, and a graduate of Trinity College in that city, was one of the intellectual portents, not only of his own country and century, but of the world, and of modern times. In his fourteenth year, he had a really sound knowledge of thirteen languages, including Arabic, Persian, Hindustani, Syriac, and Sanskrit. At seventeen, doubtless with exaggeration which must have been provoked, however, by very wonderful attainments, the youth was declared, by a good mathematician, to be the foremost man of his time in that department. At twenty-two, Hamilton became Professor of Astronomy in his University, and Astronomer-Royal for Ireland. He distinguished himself in connection with the undulatory theory of light, and propounded new methods of dealing with optical and dynamical problems by means of symbols of extended power, which excited the profound admiration of continental mathematicians. This wonderful genius, who died in 1865, crowned his career by the invention, in the calculus of quaternions, of a mathematical instrument of peculiar power and extent of application.

One of the great new scientific doctrines which have been established during recent times is that called the "conservation of energy", a principle to the effect that no system of matter can vary in the total amount of energy, or working power, which it contains, unless it parts with energy to, or receives energy from, some outside body. This great truth, approached by Sir Isaac Newton in his *Principia*, and nearly reached by Count Rumford and Sir Humphry Davy in their experiments on heat and its cause, which was by them rightly declared to be motion, was finally established

by one of our greatest physical philosophers, Mr. J. P. Joule, born at Salford in 1818, and a pupil of John Dalton. It was in 1840 that he began to study the subject of heat, and he ended by determining its mechanical equivalent in the formula that the expenditure of mechanical energy represented by the raising of 772 lbs. through one foot of space, against gravity, is needed to produce heat increasing the temperature of 1 lb. of water by 1 degree Fahrenheit. This eminent man, who became F.R.S. in 1850, died in 1889.

The study of comparative philology, founded in the eighteenth century by Sir William Jones and other scholars, and highly developed in the nineteenth century by the great Germans Jacob Grimm, Francis Bopp, W. Humboldt, A. F. Pott, Curtius, Benfey, Corssen, and by Max Müller, who has for nearly half a century been living at Oxford, has in these later days had distinguished followers in this country. Mr. James A. H. Murray, born in Roxburghshire in the year when Victoria came to the throne, gained his first high distinction as a scientific linguist by the publication, in 1873, of a work on the Lowland dialects of Scotland. His knowledge extends over most of the European, and many Oriental languages. In 1879 and 1880 Dr. Murray was President of the Philological Society, and he has since then been for many years resident at Oxford, engaged, with the aid of a large staff of assistants, and with volunteer helpers all over the country, on the first complete English Dictionary ever undertaken, one which, in its existing stage of completion, gives ample promise of far surpassing all other works of the kind. Mr. A. H. Sayce, born near Bristol in 1846, and a first-class man in classics at Oxford in 1869, is another eminent philologist and Orientalist. Mr. George Smith, born in London in 1840, and dying, all too soon, in human judgment, at Aleppo, in Syria, in 1876, was an assistant in the antiquities department of the British Museum. This self-taught man, of lowly parentage, began life as an engraver of bank-notes, and then became skilled as an interpreter of the Ninevite cuneiform inscriptions on the monuments, also making two visits to the mounds on the Tigris banks, and returning with good store of excavated relics of the distant past. In connection with this subject, due honour must be paid to the late Sir Henry C. Rawlinson, born in Oxfordshire in 1810, and long in the service of the East India Company as a military officer and politi-

cal agent. This eminent Orientalist, about 1835, began to study the cuneiform inscriptions, and was largely instrumental in devising the true method of their interpretation. The explanation of the Egyptian hieroglyphics was begun, and carried to a certain point, by Dr. Thomas Young, secretary to the Royal Society, who died in 1829, and was prosecuted with great success by Samuel Birch, of the British Museum, where he was assistant in the antiquities department from 1836 until 1861, becoming then, until his death in 1885, keeper of the Egyptian and Oriental monuments. This very distinguished archæologist was specially great in matters concerning ancient Egypt, and edited, after Baron Bunsen's death, the last volume of the famous *Egypt's Place in Universal History*.

Closely akin to philology, on one side, is ethnology, or the science which deals with the relations of the varieties of mankind to each other, as to origin, physical and mental differences, dispersion, and geographical distribution. This study, one entirely belonging, in any scientific sense, to the nineteenth century, was first raised to this rank by Dr. Prichard, a native of Ross, in Herefordshire, in 1786, who published, in 1813, his *Researches into the Physical History of Mankind*. He was also an eminent philologist, as proved by his work (1831) *The Eastern Origin of the Celtic Nations*. Ethnology, after Prichard's publication of *The Natural History of Man* (1843) and his death in 1848, was followed up by Robert Gordon Latham, born in 1812, who became a Fellow of King's College, Cambridge, and then a student of Scandinavian philology. His *Natural History of the Varieties of Mankind* (1850) and several other works on ethnology, did much to further knowledge in this department of research. One of our latest and ablest scientists dealing with ethnology is Sir William Henry Flower, F.R.S., born at Stratford-on-Avon in 1831, who became, in 1884, Director of the Natural History department of the British Museum, and was, in 1889, President of the British Association. This excellent anatomist and zoologist has rendered great service to the unlearned public by his skilful and careful arrangement, at the South Kensington building, of the beautiful and instructive specimens committed to his charge. With ethnology is closely connected the still more modern anthropology, or the science of man in relation to the other mammalia. On this subject, the most distinguished British scientist is Mr. E. B. Tylor, born at Cam-

berwell, in London, in 1832, who became F.R.S. in 1871, and was appointed, in 1883, Keeper of the University Museum, and Reader in Anthropology, at Oxford. In 1891, Mr. Tylor was elected President of the Anthropological Society. His works, *Researches into the Early History of Mankind* (1865), *Primitive Culture* (1871), and *Anthropology* (1881) are of the first order of merit for wide and sound views and principles, accurate and profound learning, and skilful arrangement of matter.

Before dealing, very briefly, with the revolutionary subject of Darwinism, which we shall approach by way of geology, we may note some eminent observers, collectors, and scientific demonstrators and reasoners in natural history. Entomology, or the scientific study of insects, founded and carried forward, in the seventeenth and eighteenth centuries, by Rae, Linnæus, Réaumur, Cuvier, and others, was first worthily treated, in this country, by William Kirby, born in Suffolk in 1759, who died in 1850, after being for more than half a century rector of a country parish in his native county. His *Introduction to Entomology*, published in four volumes between 1815 and 1826, and written with the aid of Mr. Spence, is a vast and invaluable store of facts, communicated in familiar language, on the habits, uses, and instincts of insects. Kirby, one of the earliest members of the Linnæan Society, founded in 1788, was also a Fellow of the Royal and of the Geological Societies. Since his day, the subject has been investigated with great success by a host of naturalists, native and foreign. For practical ends, it is a lady that, in this latter half of the nineteenth century, has rendered most service in entomology. Miss Eleanor Ormerod, daughter of the well-known county historian of Cheshire, first appeared in 1868 as an accurate and learned student of the manners and customs of insect-pests. A work published in 1881 on "injurious insects" caused her appointment, in the following year, as consulting entomologist to the Royal Agricultural Society, and she soon became a lecturer on her special subject at the Cirencester College. She has been one of the ablest and most vigilant foes of the destructive Hessian fly, which attacks the stems of wheat, barley, and rye.

From insects is a natural transition to the birds that so largely prey upon them. Here again, a host of able British naturalists has been engaged on every kind of research. John Gould, born at

Lyme, in Dorsetshire, in 1804, was devoted always, from an early age until his death in 1881, to the study of these most attractive creatures. In 1827 he became curator of the Zoological Society's Museum, and published a series of superbly-illustrated works on the ornithology of Great Britain, Europe, the Himalayas, and Australia, with several special works, or monographs, on humming-birds and other classes. His collection of humming-birds was one of the greatest attractions of London in 1851, and is now at the Natural History Museum, South Kensington. Mr. John Edward Gray, who became assistant in the Natural History department of the British Museum in 1824, and was Keeper of the Zoological Collections from 1840 till 1874, did immense service in completing the stock of specimens, and by his descriptive catalogues of the department which he made one unrivalled in the world.

We come next to the illustrious Sir Richard Owen, one of the greatest men in modern scientific discovery and exposition. Born at Lancaster in 1804, and educated for medicine at Edinburgh University and at St. Bartholomew's Hospital, in London, he turned to comparative anatomy and became, through his teacher Dr. Abernethy's influence, first an assistant in, and then curator of, the Hunterian Museum at the College of Surgeons in London. From 1830 to 1856 he was engaged in drawing up the marvellous series of descriptive catalogues, while he also lectured from 1836 to 1855 as Professor of Comparative Anatomy, in succession to Sir Charles Bell, at the College. In 1856, through the influence of Macaulay, one of the Trustees, he became head of the Natural History department at the British Museum, a post which he held until his resignation in 1883. He died in December, 1892, a member of all the chief learned societies of the world, and invested with the Prussian "Order of Merit", only conferred on men of the very highest distinction in literature or science. This "Newton of Natural History", as an eminent writer styled him, a true intellectual giant, the friend and peer of Cuvier, Faraday, Darwin, and Lyell, and the survivor of all these great founders of modern science, was marked alike by acute insight and by capacity for work. His research and knowledge extended, in palæontology, or the science of extinct animal and vegetable organisms, and in comparative anatomy, over nearly every class of objects from sponge to man. None but experts can even begin to understand Owen's services to

science, in his clearing up of numerous problems in natural history, and the aid rendered by him to searchers after truth in various branches of inquiry. The popular mind can best judge his powers by the wonderful achievement of constructing, from a single bone which came into his hands, the sketch of a skeleton of the great extinct wingless New Zealand bird, called *Moa* by the natives, and *Dinornis* in science. The discovery, in New Zealand, of a perfect skeleton of this creature confirmed, in every essential, the description furnished by Owen from the laws and analogies of comparative anatomy. This stupendous feat was, however, only one of a series of such triumphs of knowledge and sagacity. From some fossil footmarks found on new red sandstone rock he divined the existence, at a former period of the world's history, of a gigantic specimen of the Batrachians, or frog-species, and put together and described, from slight data, two enormous edentate animals of which fossil remains were afterwards discovered in the tertiary strata of South America. Owen's vast energy and industry enabled him also to be an active member of sanitary Commissions, a Commissioner and jury-chairman of the Great Exhibition in 1851, a Lecturer on Palæontology at the Royal School of Mines, Professor of Physiology at the Royal Institution, and the author of voluminous (and most luminous) writings on his many subjects of scientific research.

Mr. Francis Maitland Balfour, born at Edinburgh in 1851, and a distinguished student in natural science at Trinity College, Cambridge, showed such ability in researches on morphology, a branch of physics connected both with botany and zoology, as regards the structure and form of animals and plants, and their different organs in every type, that he was appointed, in 1882, to a special professorship of Animal Morphology in his University. Before he could enter on his duties, he was killed by accident in climbing on Mont Blanc. His work *Comparative Embryology*, a branch of science dealing with the development of animals from the first appearance of organization in the egg or *ovum* (the embryo stage) up to the perfect form, has given him a fame which will long endure. Mr. Balfour's researches were, like those of many of the eminent men just dealt with, in a single division or subdivision of what is now called biology, or the science of life, whose students aim at classifying and generalizing the countless and varied phenomena observed

in and peculiar to living creatures. Botany and zoology, in every department, as involving the study of organic existences, are included under biology, and it was in connection with these sciences, in all their ramifications, that the late Mr. Thomas H. Huxley gained his great and well-earned reputation. Born at Ealing, in Middlesex, in 1825, he entered the royal navy, as a medical officer, in 1846, and began his scientific career by a study of marine creatures during a lengthy surveying voyage, on the Australian coast, of H.M.S. *Rattlesnake*.

The ability of his reports was recognized, and in 1851 Huxley, at twenty-six years of age, saw the letters F.R.S. appended to his name. From that time his place in the world of science was one of ever-growing distinction for his attainments and discoveries in morphology, palæontology, physiology, and other departments of natural history. It would be a lengthy task to enumerate the honours of every kind conferred upon a man so highly distinguished not only by very wide and accurate knowledge, but by his powers of exposition both as a lecturer and a writer. In these respects his friend John Tyndall, who died in 1893, was a kindred spirit and worthy compeer. He was born in 1820 in county Carlow, and, after serving on the ordnance-survey and as a railway engineer, he studied science under Bunsen at Marburg, in Hesse-Nassau, and at Berlin. In 1853, already F.R.S., he became Professor of Natural Philosophy at the Royal Institution in London. His special subjects were heat, radiation, sound, light, glaciers, and magnetism. This very able and interesting lecturer, a master of scientific exposition, has been well said to have "brought topics once strictly confined to scientific circles from the laboratory, as the forecourt of the Temple of Philosophy, to the lecture-hall of the Royal Institution". To Huxley and to Tyndall, far more than to any other men of the Victorian age, the nation owes the great increase of attention, in educational affairs, to the natural science which is the force of the future, already acting with great power on literature and forming one of the chief elements in modern culture.

The services of electricity in telegraphy and illumination have already been given. This force is already on the way to free use as a locomotive agent. Electric launches are seen on our rivers; electric tramcars are at work in London and some great provincial towns; an electric railway, three miles in length, passing beneath the Thames, has for some years conveyed passengers, with noise-

less ease and comfort, from King William Street, in the city of London, to Stockwell, a southern suburb. In February, 1893, an electric railway, seven miles in length, passing overhead in the Liverpool docks, was appropriately opened by Lord Salisbury, a man devoted to science in his hours of leisure, and the first in this country to adopt, in his stately and charming Elizabethan house at Hatfield, in Hertfordshire, the use of the electric light. Electric power, in 1887, was successfully applied to pumping and underground haulage-work in a colliery at Normanton, in the West Riding of Yorkshire. Nearly forty years ago Mr. Joule suggested the application of the electric current to the welding of metals, an operation rendered difficult, in the ordinary process, by the formation of films of oxide upon highly-heated iron surfaces. This method has, within the last few years, been employed with perfect success in welding iron and steel, and a machine for this purpose is in action at the railway-works at Crewe. Electricity is now also used in furnaces for the generation of intense heat, and an enormous dynamo-machine, at some works in North Staffordshire, provides the means of producing alloys of copper and aluminium which are very serviceable in the industrial arts. Electrotyping for the printing-press, and in multiplying engraved plates; for turning woodcuts into copper, and for copying bronzes, are familiar applications of the electric current. The art of electroplating, or depositing one metal upon another, as silver upon iron, steel, zinc, brass, bronze, lead, or copper, was invented by Wollaston in 1801, and has been applied by Bessemer, and, notably, by the Elkingtons, of Birmingham, in the production of their beautiful specimens of silvered plate. By electro-gilding the baser metals are coated with surfaces of gold varying in thickness according to the time of the article's immersion in the bath or trough filled with the gold solution, which is conveyed by the action of electricity to the surface of the object.

Geology, as a science instead of a guess-work study, dates only from the close of the eighteenth century. William Smith, often styled the "father of English geology", born in Oxfordshire in 1769, was the first man who (in 1815) prepared a complete map of the strata of England and Wales, and showed that each layer of rocks, or rock-group, had its own particular fossils. His work dealt with the strata between the carboniferous limestone and the

chalk. After 1831, Sedgwick and Murchison classified the deeper and older deposits, and defined what are called the Silurian and Devonian systems. The Silurian, most clearly found in Herefordshire and on the borders of Wales, derived its name from the Silures, the old British tribe who dwelt in that part of the island; the Devonian, or Old Red Sandstone, belonged chiefly to Devonshire and Cornwall. The lower strata of the Primary or Palæozoic division being settled, Sir Roderick Murchison, after an investigation of the geology of Russia, in 1841, gave the name of "Permian system" to the uppermost series of the palæozoic rocks, lying upon the carboniferous system, or coal-measures. The name was taken from its extensive development in the ancient Muscovite kingdom of Permia. At a later date, Murchison expounded the Laurentian or Eozoic rocks, the oldest that contain fossils, lying below the whole Primary systems. The term "Laurentian" is derived from the fact of these rocks occupying large areas of country in Canada, on the St. Lawrence, and "Eozoic" (early-life) from their being supposed to contain the earliest traces of living creatures in the stratified systems. This remarkable man, born in Ross-shire in 1792, of a good old Scottish family, served in the Peninsular war, carrying the colours of the 36th Regiment at Vimiera, and sharing Sir John Moore's retreat to Corunna. His attention was drawn to science by Sir Humphry Davy's advice to attend the lectures of the Royal Institution. In 1826 he became F.R.S., and his discoveries procured him many other distinctions. In 1844, he predicted the discovery of gold in Australia, from the analogy which the mountain-ranges there presented, in formation, with that of the Ural auriferous range of Russia. He zealously aided Sir David Brewster in founding the British Association, and as President for many years of the Royal Geographical Society he did much to promote both Arctic and African exploration.

The Tertiary or Kainozoic ("recent life") rocks, lying above the Mesozoic ("intermediate life") system, and the latest of the three chief divisions of strata, were classified by Lyell, in 1833, in a descending scale, as Pliocene ("of more recent origin"), Miocene ("less recent"), and Eocene ("least recent"), all containing fossil-remains of existing organic species of animals and plants. Above these lie the most modern deposits, the Post-tertiary or Quaternary, or drift-beds, of special interest and importance from the light

which they have thrown on the early history of man. This division includes Pleistocene ("most recent") rocks, with alluvium, peat, and other earths. In 1841, Hugh Miller, born at Cromarty in 1802, a self-taught man, who had worked for many years as a stone-mason, published his famous *Old Red Sandstone*, written with wonderful literary power, and containing an account of his discovery of fossils in a formation which had been believed to be destitute of such remains. There have been many other British investigators in this science, and much has been learned concerning the action of fire, water, and ice, in producing the existing condition of the earth. The brothers Sir Archibald and Dr. James Geikie, natives of Edinburgh, in succession Murchison Professors of Geology at Edinburgh University, and the former now Director-General of the Geological Survey and head of the Museum of Practical Geology in London, are among the highest living authorities on the subject, whose text-books may be consulted by those who desire to have the latest information.

We now return to Sir Charles Lyell, whose *Principles of Geology*, published in 1830-32, formed an epoch in the history of the science to which he was devoted. This eminent man, born in Forfarshire in 1797, graduated at Oxford, and soon turned his attention to geology, for the prosecution of which study a private fortune gave him means and leisure. After some years of European travel, he produced his first phenomenal work. Up to that time it was believed that geological facts were due to violent periodical convulsions, and that, from time to time, a great intensity of terrestrial energy had culminated in "catastrophes" causing vast changes below the surface of the earth. Lyell possessed a wonderful power of lucid exposition, and he now, with rare sagacity, abundant illustration, and cogent reasoning, convinced geologists that the forces now in action, or natural causes, are powerful enough, if time be given, to produce the great results which Science records. Hutton and Playfair had, indeed, long before put forth doctrine of the same nature, but Lyell revived it and caused its general acceptance. No man, except Darwin, has ever so strongly influenced the direction of modern scientific thought, and his *Geological Evidences of the Antiquity of Man*, published in 1863, was full of sound evidence in favour of the theory that the race of man was far older than had been believed. After being twice President of the

Geological Society, and, in 1864, of the British Association, when he received a baronetcy, Sir Charles Lyell, dying in 1875, was buried in Westminster Abbey.

The *Principles of Geology* made thoughtful readers ask, as Huxley has said, "If natural causation is competent to account for the not-living part of our globe, why should it not account for the living part?" The minds of men were thus prepared for the advent of Darwin and his demonstration, his absolute proof, of doctrine whose germ had existed in the Ionian school of philosophy before the advent of the Christian era, and had been working in philosophic minds in the seventeenth and eighteenth centuries. The general opinion had been that animals and plants came into existence, at the creation of the world, just as we now see them. In 1859, *The Origin of Species*, with a wealth of illustration and argument of which not even an outline can here be given, taught community of descent from a common ancestry instead of the accepted and "orthodox" belief that each species of organized creatures had an independent and separate creation. The whole theory pre-supposes an existence of the earth for a very long period of time, which geology is believed, by all sane and unprejudiced persons who are capable of forming an opinion at all, to have demonstrated with the certainty of mathematical truth. Evolution, in infinite variety, from original common forms, is the revolutionary scientific truth established in this latter half of the nineteenth century. The eminent naturalist, Mr. Alfred R. Wallace, born at Usk, in Monmouthshire, in 1823, while he was studying zoology and collecting specimens in the Malay islands of the Eastern seas, had independently formed a like theory of development by natural selection, and has since powerfully supported Darwin's views. The illustrious man who originated "Darwinism", Charles Robert Darwin, was the grandson, on his father's side, of Erasmus Darwin, natural philosopher and didactic poet, who wrote the *Botanic Garden*, and had many original and suggestive ideas. On his mother's side, Charles Darwin was grandson of the great artist in pottery, Josiah Wedgwood, so that his descent was truly remarkable, taken in connection with his own achievements. Born at Shrewsbury in 1809, and educated at the famous public school of the town, at Edinburgh University, and at Christ's College, Cambridge, the young naturalist, in 1831, went with Captain Fitzroy, afterwards admiral and meteorologist,

on the surveying-voyage of H.M.S. *Beagle*. During five years of research, continued in a course which took him round the world, to the West African islands, South America, Tahiti, New Zealand and many other places, Darwin gathered a vast store of facts, related in five most valuable and interesting books with the simplicity and lucidity of true genius, concerning botany, terrene and marine zoology, geology, and other branches of physical science. He was the first man to clearly expound the method of work by which tiny creatures form the exquisite fabrics called coral-reefs, and in 1837 he read to the Geological Society a paper *On the Formation of Vegetable Mould* which was afterwards expanded into his last book, that on *Earthworms*, published in the year before his death. Darwin, at the beginning of the Victorian age, was in the foremost rank of scientific observers, becoming Secretary of the Geological Society in 1838, and F.R.S. in the following year. In 1839 he married his cousin, Miss Wedgwood, and soon began to lead a quiet, busy life at Down, near Beckenham, in Kent, where he passed forty years of most fruitful labours of mind, eye, and pen; delicate in health, most simple in habits, modest and retiring to a degree rarely seen even in the truly great, most kind in assistance rendered to all young learners in any of his own lines of study. From 1859 onward, the great book was supplemented by other volumes, in support of its central teaching, on plants and animals, including the famous *Descent of Man*, published in 1871, which traces the human race to a hairy quadrumanous creature of the group that is related to the progenitors of the chimpanzee, orang-utan, and gorilla. The doctrine of evolution, to one side of which Darwin, in the *Origin of Species*, gives expression, has had its effect on every department of biology, and has influenced science with a force comparable to that exerted by Copernicus and Newton. It is his glory to have changed the whole method of seeking after knowledge, and to have started a movement extending into literature, scholarship, criticism, and history, as well as into many lines of scientific research. The scientific conceptions of evolution, development, analysis, and biology have made their way into poetry, fiction, the newspaper, the magazine, and are felt in education, legislation, religion, and every-day life. On April 19th, 1882, Charles Darwin died, and was fitly buried, with unusual marks of honour, within the walls of Westminster Abbey. Of his countless

honours received at home and abroad, from learned and scientific bodies and from governments, we need only mention the Knighthood of the Prussian Order of Merit.

Of mental science and philosophy, or metaphysics, we here give no account, and must only name some men whose speculative and scientific writing in this department prove that Great Britain has produced, in the nineteenth century, men as capable as any in the past of grappling with the most abstruse subjects that can occupy and bewilder the human intellect. Of these very hard-headed persons, Scotland is responsible for James McCosh, Dugald Stewart, Thomas Brown, Sir William Hamilton, Dr. Stirling, and Alexander Bain; England for James Mill, John Stuart Mill, George Henry Lewes, James Martineau, Henry Sidgwick, William Kingdon Clifford, a mathematician also of the highest order, Thomas Hill Green, Henry Maudsley, and Herbert Spencer. This last, regarded by many as the greatest living thinker, has aimed at constructing a complete system of philosophy on the principles of evolution, and deals with sociology, "the Knowable", "the Unknowable", psychology, biology, and so forth, with vast knowledge and argumentative and illustrative power.

CHAPTER XXIV.

LITERATURE, NEWSPAPERS, MAGAZINES.

Literary men and women in the earlier part of the nineteenth century. Writers of the Victorian era—Characteristics of their work—Poetry—Fiction—Humorists—The Drama—Biography—Literary critics and essayists—Theology and ecclesiastical history—Oriental scholars—Writers on Anglo-Saxon, Early English, and the classical languages—Political economy and jurisprudence—History—Miscellaneous writers. The Newspaper Press—Its early struggles for freedom from taxation—Its marvellous progress—Class and trade journals. Magazines and reviews.

In literature, as in art, we are not to look to the nineteenth century for such phenomena as the vast and absolute advance that we have seen in material and in scientific affairs. Literature is dependent, for her best effects, upon two elements, originality of matter and perfection of form. Leaving aside the first of these, as a realm whose resources can never, in the nature of things, be exhausted so long as man's mind is at work upon the problems of

the universe around him, we may point to the fact that the Greeks, much more than twenty centuries ago, attained that perfection of form which, since the revival of learning, the best writers have generally aimed at imparting to their productions in prose and verse. Here and there, indeed, men of high genius, like Carlyle and Browning, have chosen to enshrine their thoughts in eccentricities of language and grammatical structure which are more than somewhat startling to a classic taste. The authors who have won the greatest favour from readers of true culture have been those who, in their highest flights, have striven to combine simplicity with force, and elegance with richness and variety of diction. The nineteenth century has produced no Shakespeare, Bacon, Milton, or Bunyan, nor, comparing our period with the eighteenth century, can we claim to have surpassed, in prose, Defoe or Swift, Fielding or Sterne, Butler the theologian, Hume or Gibbon or Burke. Towards the close of the eighteenth century, a time of foreign revolution and of war for our existence as a nation was heralded by an outburst of poetic power unrivalled since Elizabethan days. A strong and manly style of poetry began with Cowper and Crabbe, and a new star of the first order in the heaven of lyric verse arose in Scotland with the publication, at Kilmarnock, of the poems of Robert Burns. The impulse, lasting well into the nineteenth century, sent forth to fame Wordsworth and Coleridge, Byron, Scott, Keats, Shelley, Campbell, Mrs. Hemans, and Thomas Moore. Dealing first with the pre-Victorian age, we have, in fiction, Sir Walter Scott, Maria Edgeworth, Jane Austen, Captain Marryat, and the earlier works of Bulwer (or Bulwer-Lytton, or Lytton-Bulwer, the first Lord Lytton), Disraeli (Lord Beaconsfield), and Harrison Ainsworth. Southey, in his *Nelson*, Lockhart, in his life of Sir Walter Scott, and Moore, in the *Life of Byron*, gave the world biographies of a very high order. The period is rich in essay-writing that displays, in different authors, great critical acumen, admirable good sense, fervid eloquence, exquisite humour, and literary skill. We leave the reader to distribute these merits duly among William Hazlitt, S. T. Coleridge, Harriet Martineau, Charles Lamb, Sydney Smith, Leigh Hunt, Thomas De Quincey, John Wilson, Thomas Carlyle, Lord Brougham, Walter Savage Landor, and John Foster. The poets of that time, besides the great names above mentioned, include Southey, Hogg, Leigh Hunt,

Joanna Baillie, James Montgomery, Kirke White, Bishop Heber, Samuel Rogers, the parodists James and Horace Smith, H. H. Milman, Lockhart, as translator of Spanish ballads, John Keble, Landor, W. E. Aytoun, Henry Taylor, Lætitia E. Landon, Talfourd, and, in their earliest work, Thomas Hood, Tennyson, Browning, and Elizabeth Barrett (afterwards Mrs. Browning). In history, the years between 1828 and the Queen's accession saw the publication of Milman's *History of the Jews*, Sir James Mackintosh's fine fragmentary *History of the Revolution in 1688*, Lord Mahon (afterwards Earl Stanhope)'s *War of the Succession in Spain* and the early part of his *History of England from the Peace of Utrecht*. To that excellent writer and nobleman we also owe in large measure, the establishment of the Historical Manuscripts Commission and the foundation of the National Portrait Gallery. James Mill's *History of British India* appeared in 1818. Douglas Jerrold and Thomas Hood gave the earliest indications of their humorous powers, and in political economy, James Mill, Jeremy Bentham, Malthus, and Ricardo were worthy successors of Adam Smith.

We now come to the reign which has lasted longer than any other in our annals, and seems likely, in regard to the vigorous health of the revered possessor of the throne, to outlast the century, as all good citizens desire. The Victorian age of British literature, now of over sixty years' duration, needs no comparison with the much and justly vaunted periods of Elizabeth and Anne. Its great marks are those of its own restless, busy, swiftly-moving, ever-changing time—vigour, versatility, complexity, and brilliancy in many forms. It has no conventional types, or standards, or models, but each man or woman, be the utterance in prose or verse, delivers to the time the thought within, in just such phrases as may suit the writer's fancy. In the later period, since 1863, the chief characteristic of our fiction and our essay-writing has been the powerful influence of sociology, an influence defined by a very recent critic as involving "enthusiasm for social truths as an instrument of social reform". Our latest school of novelists, especially, is ever ready to propound and strive to solve the deepest problems that concern humanity through the medium of some wayward, introspective heroine or hero, and archæology, and history, and natural science, and discussions of social questions have superseded

the mere telling of a story to give pleasure by lively incident, or by artistic development of human character. Take it for all in all, for sum of excellence in history and fiction, poetry and prose, essay and romance; for learning, sound criticism, variety of culture and attainment; for everything save the highest imaginative and dramatic genius, this democratic time of coal and iron, of social and political reform, of railways, telegraphs, swift printing, keen, incessant competition, electric lights, and endless mechanical invention and advance, can boast a literature that, in every line save drama, stands very high, in all the history of the world, for grace and art, for purity and power, for deep research, for wit and humour, for true enlightenment and sound sense. The names alone suffice, or should suffice, to suggest the chief works of the authors here mentioned, some of whom will keep recurring for excellence in divers lines of writing.

In poetry, we find Matthew Arnold, William Barnes (the poems in the Dorset dialect), the Brownings, Robert Buchanan, C. S. Calverley, A. H. Clough, Mortimer Collins, Thomas Hood, W. S. Landor, Lewis Morris, William Morris, Mrs. Norton, Coventry Patmore, W. M. Praed, Francis Mahony ("Father Prout"), Macaulay, Locker-Lampson (Frederick Locker), George Meredith, "Owen Meredith" (the second Lord Lytton), D. G. Rossetti, Christina Rossetti, Swinburne, Lord Tennyson, and Theodore Watts. In fiction, the category, a very lengthy one, enables us safely to challenge comparison with any period in producing Dickens, Thackeray, "George Eliot" (Miss Evans), George Meredith, Sir E. L. Bulwer (the first Lord Lytton), Sir Walter Besant, Grant Allen, Mrs. Alexander, F. Anstey, J. M. Barrie, R. D. Blackmore, William Black, Miss Braddon, the sisters Brontë, Baring-Gould, George Borrow, Rhoda Broughton, Mrs. Burnett, "Cuthbert Bede", Robert Buchanan, R. M. Ballantyne, Lord Beaconsfield, Mortimer Collins, Wilkie Collins, Mrs. Craik (Miss Mulock), William Carleton, S. R. Crockett, Conan Doyle, Annie Edwardes, Miss A. B. Edwards, Miss Betham-Edwards, Hall Caine, Mrs. H. L. Cameron, "Hugh Conway", F. Marion Crawford, G. Manville Fenn, B. L. Farjeon, Miss Ferrier, James Grant, Mrs. Gaskell, G. A. Henty, Rider Haggard, Thomas Hardy, Julia Kavanagh, Joseph Hatton, Charles Kingsley, Henry Kingsley, Rudyard Kipling, W. H. G. Kingston, Charles Lever, Mrs. Lynn Linton, Samuel

Lover, "Edna Lyall", George MacDonald, Ian Maclaren (Watson), Captain Marryat, Florence Marryat, Lawrence Oliphant, Mrs. Oliphant, James Payn, "Ouida", Charles Reade, Christie Murray, J. S. Le Fanu, Mrs. Riddell, Justin M'Carthy, F. E. Smedley, G. A. Sala, R. L. B. Stevenson, W. Clark Russell, Col. Meadows Taylor, F. W. Robinson, Anthony Trollope, T. A. Trollope, Whyte-Melville, J. H. Shorthouse, Hawley Smart, Annie Thomas, "J. Strange Winter", G. R. Sims, Samuel Warren, Mrs. Henry Wood, Edmund Yates, and Charlotte M. Yonge. In humorous writing, apart from the great novelists Thackeray, Dickens and others, few men have ever been so gifted in arousing innocent mirth as Archdeacon Barham ("Thomas Ingoldsby"), F. C. Burnand (*Happy Thoughts*), Lewis Carroll (Rev. C. L. Dodgson), Thomas Hood, Douglas Jerrold, and Francis Mahony ("Father Prout"). British dramatic writing, for more than a century, since the days of Sheridan, has shown little or nothing of even high second-rate quality. Talfourd's *Ion* dealt gracefully with a theme from Euripides; Sheridan Knowles, in *Virginius*, *William Tell*, *The Hunchback* and other plays, showed some real power; the first Lord Lytton, with *Money*, *Richelieu*, and *The Lady of Lyons*, probably heads the list. Sir Henry Taylor's *Philip Van Artevelde* and some of Joanna Baillie's tragedies are excellent reading, not intended for the stage. In melodrama, extravaganza, comedy, farce, and burlesque we may name Douglas Jerrold, Planché, Stirling Coyne, Maddison Morton, Oxenford, H. J. Byron, Boucicault, T. C. Burnand, Craven, Tom Taylor, Charles Reade, Buckstone, T. W. Robertson, Westland Marston, Watts Phillips, W. S. Gilbert, Albery, W. G. Wills, G. R. Sims, Sydney Grundy, A. W. Pinero, and Mr. Pettitt.

In biography, the most notable names, one or two being of the highest rank, are Carlyle, Allan Cunningham, Alexander Gilchrist, Agnes Strickland, Lord Dalling, John Forster, Dr. Hook, J. A. Froude, Lord Campbell, Dr. Abbott, Macaulay, Dean Stanley, David Masson, Sir Theodore Martin, John Morley, Mark Pattison, Leslie Stephen, John Robert Seeley, Samuel Smiles, and Sir George Trevelyan. In criticism and history of literature and art, and in general essays, most valuable work has come from Anna Jameson, Matthew Arnold, Walter Bagehot, Dr. John Brown, Carlyle, Alexander Dyce, J. P. Collier, Sidney Colvin, Edward Dowden, James Fergusson (historian of Architecture), E. A. Freeman, J. A. Froude,

P. G. Hamerton, James Hannay, Sir Arthur Helps, Frederick Harrison, Augustus and Julius Charles Hare, Richard Jefferies, Lord Jeffrey, Landor, Andrew Lang, George Henry Lewes, Sir George Cornwall Lewis, Mrs. Lynn Linton, W. R. Greg, St. George Mivart (the chief opponent of Darwinism), Macaulay, William Maginn, John Morley, Henry Morley, Walter Pater, Nassau Senior, Mark Pattison, Swinburne, Thackeray, Goldwin Smith, James Spedding, Leslie Stephen, R. L. B. Stevenson, Henry Rogers, John Ruskin, G. E. B. Saintsbury, J. A. Symonds, Theodore Watts, and A. W. Ward. In theology and Church history, the chief authors of this fertile period are, besides eminent men who have been named in a previous chapter, Stopford Brooke, John Caird, Dean Church (of St. Paul's, London), Bishop Colenso, W. J. Conybeare, Dean Howson (of Chester), Samuel Davidson, Bishop Ellicott, Dean Farrar, Augustus Hare, Edwin Hatch, Thomas Hartwell Horne, Dr. Jowett, Dr. Kitto, Dr. Pusey, Dr. Liddon, Dr. Mansel, Dr. Abbott, Dean Milman (of St. Paul's, London), Dr. Plumptre, Baden Powell, Sir James Stephen, Dr. Stoughton, Isaac Taylor the elder, Dr. Scrivener, J. R. Seeley, Bishop Westcott (of Durham), Dr. Tregelles, and Archbishop Trench.

Some of our chief Oriental scholars have already been named. Edward Fitzgerald is known by his extremely able translations from Persian poets; Edward William Lane, one of our greatest Arabic scholars, won fame by the first accurate translation of the *Thousand and One Nights*, and of *Selections from the Koran*, and by the Arabic Lexicon which, completed by his grandnephew, Mr. S. Lane-Poole, became the chief work of its class for European scholars in that language. Mr. Edward Henry Palmer, an Orientalist of extraordinary abilities and attainments, has been seen in connection with the Egyptian War, and his tragical fate recorded. Dr. Samuel Lee, Professor of Arabic, and then of Hebrew, at Cambridge University, in the earlier part of the century, superintended for the British and Foreign Bible Society the issue of editions of the Scriptures in Syriac, Malay, Persian, Hindustani, Arabic and Coptic. Dr. Legge, a native of Aberdeenshire, formerly a missionary in China, became in 1876 the first Professor, at Oxford University, of the Chinese Language and Literature, and his editions of the chief Chinese classics, with text, translation, and commentaries

(1861-1886) proved him to be the ablest scholar in that very difficult tongue that Europe has ever produced. One of the most wonderful linguists of the age was a Dorsetshire clergyman, Solomon Caesar Malan, Rector of Broadwindsor, a man of marvellous versatility, skilled in music, wood-carving, and British-bird lore, who won the Boden Scholarship in Sanskrit, and the Pusey and Ellerton Scholarship in Hebrew, at Oxford University, and, after becoming a Classical Professor at Bishop's College, Calcutta, and Secretary to the Asiatic Society of Bengal, retired to his obscure country living, and issued theological and liturgical works dealing with the Chinese, Mongolian, Armenian, Coptic, Russian, Syriac, Ethiopic, Sahidic, Memphitic, Gothic, Georgian, Slavonic, Anglo-Saxon, Arabic, Persian, and Japanese languages. Mr. W. R. S. Ralston is noted for his Russian, and Mr. John Rhys for his Celtic, scholarship. Max Müller has been already named for his proficiency in philology; his linguistic knowledge extends, in some degree, to perhaps 150 languages. Sir Henry Yule, chiefly known by his admirable edition of the book of the Venetian traveller Marco Polo, was a native of Inveresk, near Edinburgh, and became Colonel in the Bengal Engineers. He was formerly President of the Hakluyt Society (named from the famous Elizabethan writer on voyages and discoveries, and founded in 1846 for the publication of all the histories of early travel) and of the Royal Asiatic Society, and he possessed an extraordinary knowledge of Eastern geography and history. In Sanskrit scholarship, in the first half of the century, great proficiency was attained by Horace Hayman Wilson, formerly a surgeon in the East India Company's service, who became Secretary to the Asiatic Society of Bengal, and in 1833 was chosen Boden Professor of Sanskrit at Oxford. On his death in 1860, he was succeeded by Mr. (now Sir) M. Monier-Williams, an Englishman born in Bombay, who has well maintained our credit in this department of learning, and has published many excellent books dealing with Sanskrit, and with ancient and modern India. In Anglo-Saxon, one of our chief names is that of Joseph Bosworth, whose famous Anglo-Saxon Dictionary appeared in 1838. Twenty years later, he became Professor of that early form of English at Oxford University, and gave the sum of £10,000 towards founding a like chair at his own *alma mater*, Cambridge. In early English, and in Shakespearian, philology and grammar, the highest attain-

ments have been those of Mr. F. J. Furnivall, Mr. Halliwell-Phillipps, Dr. Abbott, and Mr. W. W. Skeat. Dean Farrar, Isaac Taylor, and Archbishop Trench have also written interesting and valuable books on philological studies. Turning now to strictly classical learning, we may state that the country which, in the eighteenth century, produced prodigies of knowledge in Greek and Latin scholarship in Bentley and Porson has been, in the nineteenth century, well represented, for England, by Peter Elmsley, Dr. Donaldson, Richard Shilleto, Dr. Liddell, Dr. Scott, Professor Jebb, Dr. Jowett, Dr. Gaisford, Dr. W. H. Thompson (of "Trinity"), Charles Rann Kennedy, Dr. Kennedy, George Long, Sir William Smith (of the Dictionaries), H. A. J. Munro (of the *Lucretius*), Frederick A. Paley, and John Conington; while Scotland may well boast the two Ramsays, Dr. John Stuart Blackie (as devoted to Homer as Mr. Gladstone), Colonel William Mure (of Caldwell, in Ayrshire), Dr. Sellar, and William Veitch; Ireland has given us Dr. Mahaffy.

Political economy and jurisprudence may seem to belong rather to the domain of science than of literature, though literary skill may well be, and has sometimes been employed to give attraction to these subjects. On the former, the chief writers of the period have been John Stuart Mill, J. E. Cairnes, Henry Fawcett, W. S. Jevons, J. R. M'Culloch, and J. E. Thorold Rogers. In jurisprudence, and on international law, admirable work has been done by Macaulay (Indian code), John Austin, Sir Henry J. Sumner Maine, Sir R. J. Phillimore, Sir James Fitzjames Stephen, and Sir Travers Twiss. Before taking up the subject of history, we may remark that the new scientific method of treating it, a development of the omnipresent, ever-working evolutionary principle, has given fresh importance to the work of those who deal with the foundations of history in the shape of original documents—Acts of Parliament, treaties, dispatches, letters, state-papers and records of every kind. In this direction, most valuable aid, by editing and annotating these authorities, has been rendered by Sir Henry Ellis, Sir Thomas Duffus Hardy, Sir F. Madden, Sir N. Harris Nicolas, Professor J. S. Brewer, and James Gairdner. It is in history that some of the most powerful British intellects of the nineteenth century have won enduring fame by laborious and accurate research, or sound philosophy, or brilliant style, or by the combina-

tion, in greater or less degree, of two or more of these elements of value in recording and reproducing the past. We must not be understood as including all the writers now to be named in the category of "most powerful intellects", or as predicting a lasting repute for their productions. They have all, however, their share of real merit; and some rank, as they will ever rank, amongst the greatest historians of all ages since men began to write books. In ancient history, Professor George Rawlinson has dealt with the Oriental world. Olden Greece has been revived for readers by Thirlwall, Grote, and Sir George Coxe; ancient Rome, at various periods, by Dr. Arnold, Dean Merivale, and George Long; ancient Egypt, by the eminent traveller and explorer, Sir John Gardner Wilkinson. Sir Edward Creasy's *Fifteen Decisive Battles* is a well-known, most popular work, covering classical, mediæval, and modern ground. The Middle Ages of Europe and European literature have been admirably treated by Henry Hallam. English history, in the earlier days, is vastly indebted to E. A. Freeman, John Mitchell Kemble, Pearson, Sharon Turner, and Sir Francis Palgrave. English early and mediæval times, and Irish history, have been illustrated by Thomas Wright, and Scottish history has been excellently dealt with by Patrick Fraser Tytler, W. F. Skene, and J. H. Burton. Modern European history, at divers periods, is given in the pages of Sir Archibald Alison, Henry Thomas Buckle, Carlyle, T. H. Dyer (who is also eminent in the archæology of Pompeii, Athens, and Rome), George Finlay (Greece), Lecky, Fyffe, and Professor J. R. Seeley. Our constitutional history has been handled with consummate skill and learning by Hallam, Bishop Stubbs, and Sir Thomas Erskine May. Charles Knight, Dr. Lingard (to 1688), and John Richard Green have treated English history as a whole. For special periods of our annals we need only mention Froude, James Gairdner, Samuel Rawson Gardiner, J. W. Kaye, A. W. Kinglake, W. E. H. Lecky, Lord Macaulay, Justin M'Carthy, Harriet Martineau, William N. Molesworth, Sir William Napier, Earl Stanhope, and Spencer Walpole. We will venture to say that the deep and accurate knowledge, literary skill, and power of thought displayed unitedly by a picked dozen of the above-named writers on ancient, mediæval, and modern events constitute a treasure of ability and achievement, in that department, to which no period or country since the revival of

learning affords any approach. A good history of the Spanish conquest of America, and excellent biographies of Columbus, Las Casas, Cortes, and Pizarro are due to the admirable essayist Sir Arthur Helps. We must now draw to a close this brief but by no means hasty account of the British writers of the nineteenth century. We hope that no important omissions have been made when we finish with a reference to some authors not easily classed with any of the foregoing. There are many readers who will recall, along with the name, the chief literary work of William and Robert Chambers, Hepworth Dixon, Dr. Doran, Miss Mitford, and Percy Fitzgerald. In topography, combined with history, we must not forget Mr. Loftie's excellent *London*, nor Murray's Handbooks to many countries, by various authors. In books of descriptive geography, which are countless, Sir James Emerson Tennent's *Ceylon* holds one of the highest places in our literature. Our very last word must be a grateful acknowledgment of one of the ablest works, in its class, of modern days, Mr. T. H. S. Escott's *England*, a book in which our country of the Victorian age is presented with consummate literary skill, combined with rare accuracy of statement and impartiality of tone.

No small part of the literary ability of Great Britain in modern days lies in either the purely ephemeral or at least the first work of writers in the columns of journals or the pages of reviews and magazines. The daily newspaper of the later Victorian time is assuredly one of the greatest triumphs of human energy, mechanical skill, and organization. For the British printing-press in general it has been justly claimed by Macaulay that it is at once "the freest in Europe" and "the most prudish", and our newspaper press has been as truly declared, by Mr. Escott, to display "more of originality, freshness, ability, vigour, and variety than that of any other country in the world". Towards the close of the eighteenth century the daily and weekly newspapers were becoming a real power in the land. The *Times* was established in 1788, as an extension of the *Daily Universal Register*, which had come into existence three years previously. The other London "dailies" of the time were the now extinct *Morning Chronicle*, founded in 1769, and the *Morning Post* (1772). In 1794 the *Morning Advertiser* first appeared. In the provinces, at the beginning of the nineteenth century, there were weekly papers at some of the larger

towns. In Scotland, the *Glasgow Herald* began in 1782, the *Dundee Advertiser* in 1801, and the *Scotsman* in 1817. In Ireland, there were some old-established influential papers, among which the *Freeman's Journal* was founded in 1763. The great obstacles to progress in newspaper enterprise were the stamp-duty, the advertisement-duty, and the paper-duty. Publicity was hateful to authority that misused its powers, and war was waged against the public press, not with the result of stifling its utterance, but of restricting circulation by compelling publishers to charge, on the average, sevenpence per copy. The stamp-duty, first levied in 1712, at the rate of one halfpenny per sheet on every newspaper of a sheet and a half, became a very cruel and oppressive impost. Even at that rate many papers were at once given up. Under George the Third the tax was raised, by degrees, from one penny per copy in 1760 to fourpence in 1815 on every full-sized sheet. For more than twenty years war was waged between the newspaper-press and the government on this question, in attempts to evade and to defy the iniquitous tax. Between 1830 and 1836 more than 500 persons were imprisoned, on the prosecution of the Stamp Office, for the offence of selling unstamped newspapers. The most resolute heroism, the most strenuous patience, were displayed by these poor men and women. They went to jail, and on their release they at once resumed the work of selling papers not impressed with the government-stamp. The names of the victims are now mostly lost, but they have been well described as "privates in Liberty's army, who were struck down in the battle, who by their sufferings won for us our freedom, and on whose unknown graves we cannot even lay a leaf of memory and of thanks". The stamp-duty, in its full amount, did not long survive the First Reform Act, being reduced to one penny per copy in 1836. The advertisement-duty, first imposed in 1701, at one shilling per advertisement, had now become 1s. 6d. In 1849, an association, among whose leaders we find Mr. Milner Gibson, Mr. John Bright, and Mr. Edward Miall, was formed for the "Repeal of the Taxes on Knowledge". A persistent attack was made on the advertisement-duty, the remaining stamp-duty, and the paper-duty. The first vanished in Mr. Gladstone's first great budget, that of 1853. In 1855, the same financier got rid of the newspaper stamp. In 1861, as already mentioned, that statesman made an end of the

paper-duty. Henceforth there was a possibility of the penny-press which has, during the latter half of Victoria's reign, attained proportions so enormous. Of the existing London daily newspapers, the *Globe* was established in 1803; the *Standard*, as an evening paper, in 1827, and as a morning issue, in 1857; the *Daily News*, in 1846, the *Daily Telegraph* in 1855, the *Daily Chronicle* in the same year, the *Pall Mall Gazette* in 1865, the *Echo* in 1868, the *St. James's Gazette* in 1880.

Steam-printing for newspapers was first used in Great Britain at the *Times* office in 1814; stereotyping was perfected, at the same place, in 1860, and the famous "Walter Press", the first successful machine for printing from a web of paper, came into use for printing the *Times* in 1869. A huge cylindrical roll of paper, four miles long, is drawn in at one end of this marvellous mechanical invention, and is delivered at the other, printed on both sides, cut into separate copies, and then folded, by an attached apparatus, into two, three, or four folds as required. Several other even more ingenious and effective machines have since come into use, one of which (that of Hoe & Co. of New York and London) prints and delivers no less than 24,000 copies per hour of a four or six page newspaper, or 12,000 of an eight or twelve page one. The work of printing is completed, at the London offices of daily morning papers, at about 2.30 A.M. At 4, by express newspaper-trains, the bales of copies go out from the metropolis, and the public of the great towns in the north read their *Times* or *Standard*, or *Telegraph* or *Daily News* as an accompaniment of the morning meal. A remarkable fact in connection with the modern newspaper is the excellence attained by the provincial press. The journalism of Liverpool, Manchester, Leeds, Edinburgh, Glasgow, and other great towns is nearly up to the highest metropolitan standard for ability, influence, and enterprise, as shown both in purely literary qualities and in the amount of well-digested intelligence furnished to readers. As regards telegraphic news, domestic and foreign, the provincial journals are placed in an equally good position with the London daily press by the several excellent news-agencies, of which Reuter's was founded in 1858, the Central Press in 1863, the Press Association in 1868, and the Central News in 1870. The London offices of the chief provincial newspapers are connected by special wire with the country offices where the papers are produced, and

the parliamentary reports are furnished by special staffs of short-hand writers, the expenses being shared by syndicates in which, according to their politics, the leading provincial journals are associated. The "London Correspondents" who furnish special letters to the provinces, with a summary of the week's social, literary, and political news and gossip, arose in 1863, through the enterprise of the Central Press Agency, and the once weekly "London letter" has become, in many cases, a daily feature of provincial journalism. The achievements of the "War Correspondent" of these later days need no remark, being suggested by the mere mention of such names as Archibald Forbes and O'Donovan. Some idea may be formed of the magnitude of the interests represented by the leading penny papers of London through the following statements. The total annual expenditure of one of these journals exceeds a quarter of a million sterling, or above £850 for each daily issue. The annual clear profit reaches £60,000, or nearly £200 per day. The daily number of copies sold varies, in different newspapers, from 100,000 to above a quarter of a million. The chief provincial daily papers have establishments and show results of corresponding magnitude. There are weekly papers with a circulation of from a quarter to half a million copies, and the circulation of the two chief illustrated weeklies, the *Illustrated London News* and the *Graphic*, greatly exceeds 100,000. A recent feat of enterprise has been the production of the *Daily Graphic*, with illustrations of occurrences strictly "up to date". It remains only to say, with regard to newspapers, and their increase during the last half-century, that, whereas in 1843 there were a few more than 500 published in the United Kingdom, of which 14 were daily—12 in England and 2 in Ireland—there were, recently, over 2500 newspapers appearing in the British Isles. Of these, 211 were dailies, by an increase fifteen-fold, about 160 appearing in England, 7 in Wales, 25 in Scotland, and about 16 in Ireland. During the same period, the London newspapers grew from 79 to 646, including 28 dailies, 9 being so-called "evening papers", of which the earliest editions come out about noon. The vast development of class and trade journals is shown by such facts as there being 30 specially devoted to agriculture, 11 to army matters, 14 to naval affairs, 12 to athletics, 13 to builders, 11 to Baptists, 47 to the Church, 30 to "comic" notions, 3 to confectionery, 13 to drama, 23 to education,

39 to finance, 16 to gardening, 18 to law, 46 to religion (non-sectarian), 6 to the retail liquor-trade, 26 to medicine, 10 to photography, 5 to dogs, 8 to poultry, 40 to sporting, 37 to fashions, 32 to temperance, 6 to electricity, and 8 to sanitary affairs. The modern "Society" journals, with their personal, spicy, and not seldom libellous paragraphs began with the publication of *Vanity Fair* in 1868, followed by the *World* in 1874 and *Truth* in 1877.

Of the periodical magazines and reviews we may say at once that they now constitute, in themselves, a literature of enormous magnitude such as no man could cope with save through the agency of fifty pairs of eyes, constantly engaged in the work of perusal. The mental condition of the reader, after a month or two of such employment, is a terrible subject of contemplation. All tastes and classes of readers are provided for in the more than 1500 publications of this kind, including about 400 of a religious character, representing the Established Church and many Christian and non-Christian, "philosophic", sects. Scotland has the honour of starting the first really able literary and political "review" in the nineteenth century, in the *Edinburgh Review*, founded in 1802. The Tory party responded with the *Quarterly* in 1809, and in 1817 the still prosperous *Blackwood's Magazine* came forth, and began the list of monthly miscellanies. In 1832, *Chambers' Journal*, still appearing in a "Fifth Series", was established, as also the *Penny Magazine*, published by the Society for the Diffusion of Useful Knowledge. This publication, along with many other useful and valuable serials, such as Charles Knight's *Quarterly Magazine*, and *Colburn's Monthly*, and *Fraser*, has long done its work and passed away. The purely literary journals include the *Athenæum*, founded in 1828, the *Literary World* (1868), and the *Academy* (1869). The dramatic *Era* belongs, in origin, to 1837; the *Spectator* arose in 1828, the *Saturday Review* in 1855, the *Speaker* in 1890, the *Review of Reviews* in the same year, and the *Strand Magazine* in 1891. The *Westminster Review*, founded by Jeremy Bentham in 1824 as the organ of the utilitarian philosophy and of radicalism, absorbed the *Foreign Quarterly Review* in 1846, and in 1887 was turned from a "quarterly" into a "monthly", still retaining the original philosophico-radical principles. The *Fortnightly Review* appeared first in 1865, soon becoming a monthly magazine; the *Contemporary Review* in 1866 and the *Nineteenth Century* in

1877. The famous *Household Words* of Charles Dickens was changed in 1859 into *All the Year Round*. Of the excellent "monthlies" of the latter half of the Victorian period, *Macmillan's* began in 1859, *Cornhill* and *Temple Bar* in 1860, as also *Good Words*, and the *Sunday Magazine* in 1864. The popular *Leisure Hour* first appeared in 1852, and the *Sunday at Home* about the same time. Of the illustrated weekly papers, the *Illustrated London News* was first issued in 1842, and the *Graphic* in 1869. Of the "comics", *Punch* was started in 1841, and *Judy* in 1867. The *Art Journal* was established in 1839, and the *Portfolio* in 1870. The above are but some of the chief publications of this class, but they suffice to show, for those who note the names of the authors of contributions now mostly acknowledged by the writers, the large amount of high literary ability now placed at the service of readers, at a moderate price, in these closing years of the nineteenth century. The extension of free libraries, with reading-rooms, during recent years, enables countless persons to peruse the best serials without incurring any cost at all.

CHAPTER XXV.

ART.

Leading names in Art before the reign of Victoria—Formation of Art societies. In the Victorian period:—Painting—The Pre-Raphaelite movement. Sculpture. Line-engraving, etching, &c.—Wood-engraving—Photography. Architecture. General diffusion of Art in domestic life—Art galleries. Music—Festivals and choirs—Eminent vocalists and conductors—Crystal Palace concerts—Popular concerts—The Opera—Spread of musical education. The Stage in London—Noted players and managers.

There can be no doubt whatever concerning the advance made by British art, in every department, during the century that is so soon to close. Until the latter half of the eighteenth century there was, indeed, no British art. There had been a Christopher Wren and an Inigo Jones, but architecture, in the earlier Georgian period, became mere barbarism. Hogarth, Reynolds, Gainsborough, Romney, Wilson, Copley, George Morland, and even Benjamin West, showed that there were Englishmen who knew how to paint both in portraiture and landscape, and Sir Robert Strange,

Thomas Bewick, and Woollett were engravers of very high mark. Our sculpture began with Thomas Banks, John Bacon, and John Flaxman, the first and last of whom were truly Greek in conception, with skill of hand that fell short of their ideas and taste. The first public exhibition of the performances of living artists was opened in London, in April, 1760, at the room of the Society of Arts, and eight years later the Royal Academy was founded, with Sir Joshua Reynolds as the first president. In the earlier part of the nineteenth century, artistic building was in the hands of Sir John Soane, who designed the Bank of England, Sir Robert Smirke, the architect of the (original) General Post Office in London and the British Museum front, and Nash, the author of Regent Street. In sculpture, Sir Francis Chantrey and Sir Richard Westmacott were the successors of Flaxman. In portrait painting, Sir Thomas Lawrence, in a sense, replaced Reynolds, and Sir Henry Raeburn won high repute for the Scottish school in that line of art. Sir David Wilkie is still unsurpassed for his illustration of Scottish character and manners in humble life. In 1802 Joseph Turner, the greatest of all landscape painters, became a Royal Academician. In this style, Constable, Collins, and "Old Crome", of Norwich, upheld our reputation. In 1804 the "Old" Water-Colour Society was founded, and in 1831, the "New" Water-Colour Society, now the Institute of Painters in Water-Colours, began to exist. The works of Turner, David Cox, Copley Fielding, W. Henry Hunt, Samuel Prout, George Cattermole, Peter de Wint (a native of Staffordshire, of Dutch descent), and of Frederick Walker, have made our country foremost in the world in this charming style of art.

In the earlier part of Victoria's reign, the chief painters were Turner (in his latest style), David Roberts (church-interiors), William Collins (landscape), Clarkson Stanfield (marine subjects), Augustus Callcott (landscape), Mulready (genre), C. R. Leslie (genre), Wilkie, Edwin Landseer, E. M. Ward (historical), and some of the water-colour artists above named. William Etty, grand in flesh-colouring, was bad in drawing, like too many of his brethren in that day. In the middle and later periods of the long reign J. C. Hook has been distinguished for sea-shore subjects, John Linnell for Surrey landscape, Ford Madox Brown for historical works, Lady Butler (Miss E. S. Thompson) for battle-scenes,

Alma-Tadema (a native of Holland) for brilliant, realistic, and correct representation of ancient Greek, Roman and Egyptian life. Sidney Cooper is unrivalled for sheep, John Phillip for Spanish interiors, Sir John Gilbert, long President of the Society of Painters in Water-Colours, is excellent in historical, chivalric, and antiquarian subjects. Frederick Goodall and E. J. Poynter have won fame in Egyptian scenes. George Frederick Watts is a noble poetic painter in the historical and allegorical styles, the late Lord Leighton was admirable in ancient Greek poetical and mythological subjects. Mr. Frank Holl is one of our finest portrait-painters. In Scotland, in the early part of the century, Sir William Allan, not great in execution, rendered much service in promoting historical art in national subjects. Sir J. W. Gordon succeeded Raeburn as the chief portrait-painter of his country; Sir Noel Paton is distinguished by graceful treatment of legendary, fanciful, and mystical scenes. Thomas Faed is great in Scottish peasant-life, Peter Graham and Horatio M'Culloch in Highland landscape.

It has been claimed for the famous Pre-Raphaelite movement that began in 1848, at a time of general European unrest, that it was "more of an ethical than an æsthetic revolution". The incarnation of this movement was Dante Gabriel Rossetti, born in 1828, elder son of the Italian poet and man of letters, Gabriele Rossetti, who warmly advocated constitutional rule in his native land, and, being driven into exile, became in London a highly esteemed teacher of Italian, specially devoted to the study and criticism of Dante. The younger Rossetti aimed at a revival of British art, in the way of higher conception and feeling, and more faithful and patient execution, according to the school of Leonardo da Vinci and Michael Angelo, the precursors of Raphael. The "Pre-Raphaelite Brotherhood" included Rossetti and his young friends John Everett Millais, William Holman Hunt, and the sculptor Thomas Woolner. Mr. Ford Madox Brown had for some years been working in the same direction, and Mr. Ruskin, in his famous *Modern Painters*, the five volumes of which immortal work appeared between 1843 and 1860, shared in the great uprising against artificial authority, tradition, and convention in art, and insisted upon principles the adoption of which has wrought with very powerful and improving effect upon British painting. Rossetti

himself was not greatly distinguished for the expression, in colour, of his own ideas, and soon turned to poetry as his medium; Millais and Holman Hunt need no praise. Among our later artists, Sir E. Burne-Jones is noted for his poetical and imaginative power, and for his brilliancy and purity of hue in water-colour; Mr. Whistler, a native of Massachusetts, for his originality of treatment and technical skill both in oil-painting and etching.

Of sculpture we can only here say that our chief men in this line during the Victorian age have been John Gibson, Baily, J. H. Foley (a native of Dublin), Woolner, Boehm, M'Dowell, Hamo Thornycroft, Alfred Gilbert, and that great original artist in marble, Alfred Stevens, born at Blandford, in Dorsetshire, in 1818. His high genius and taste preferred the work of the Italian school of the Renaissance, which he adapted with great skill to modern conditions. He was chosen to execute the Duke of Wellington's monument in St. Paul's Cathedral, but was shamefully treated by the authorities there, who knew little of art and nothing of what was due to artists. Before his death in 1875, he had almost completed the finest piece of architectural sculpture that this country ever produced. For many years, this magnificent Wellington memorial was hidden away in a side-chapel of the cathedral; in 1892 it was removed to its proper position.

In line-engraving, now a somewhat declining art in this country, we have had Radclyffe and Brandard, Willmore and Miller, Lumb Stocks and G. T. Doo, producing admirable effects in landscape. In etching, Andrew Geddes and Turner (the great painter) have been followed by those most accomplished artists in this style, Palmer and P. G. Hamerton, author of *Etching and Etchers*, Whistler and Seymour-Haden. Mezzotint-engraving has been practised with great success by Thomas Lupton, David Lucas, and Samuel Cousins. In lithographs, R. J. Lane has been unrivalled for delicate effects. Wood-engraving, first made greatly important by Bewick, in his *British Quadrupeds* (1790) and *British Birds* (1804), received a great development through the founding of our illustrated papers. John Thomson, Clennell, Sir John Gilbert, and Birket Foster have been chief representatives in this beautiful style of art, now risen to a very high degree of excellence among us. Among our best illustrators of books have been Hablot K. Browne ("Phiz"), Randolph Caldecott, George Cruikshank, Birket

Foster, and Harrison W. Weir. The achievements, in comic caricature, of John Leech, Sir John Tenniel, Linley Sambourne, Richard Doyle, Charles Keene, and Harry Furniss, are known to all readers of *Punch* and its congeners.

Photography is one of the scientific and artistic inventions due to the nineteenth century. In 1814 a Frenchman, M. Nicéphore Niepce, of Châlons-sur-Saône, discovered a method of producing, by means of the action of light in a camera obscura, pictures on plates of metal coated with asphaltum, which were also rendered permanent. This process was called "Heliography" or "sun-drawing". A quarter of a century later, another Frenchman, M. Daguerre, who worked for some years in conjunction with Niepce, perfected the method of producing the pictures called "daguerreotypes", which were the first practical success in the way of "light-pictures". Mr. W. H. Fox Talbot made independent discoveries in England, and produced, in 1841, the pictures called "Talbotypes" and "Calotypes" ("fair impressions") on paper treated with chloride and nitrate of silver. Later improvements have led to the present condition of the exquisite art which has not only been of special value, in a social sense, to a nation whose families send forth so many sons and daughters to all parts of her vast colonial empire, but has done great things for science in the exact representation of countless astronomical and other phenomena, and has, in various forms, been applied with great success to illustrative purposes, in reproducing pictures, and in superseding or aiding some of the styles of engraving. Carbon-printing, and the development thereof known as "autotype", photo-lithography, photo-zinco-graphy, and photogravure are the chief methods now used with results so wonderful and so beautiful in book-illustration.

The revival of architecture in the British Isles belongs solely to the Victorian age. When the Queen came to the throne, she found herself ruling over home-countries vulgarized, in every great town, by the degradation and abuse of the Greek, the Gothic, and the Renaissance styles. There was consolation in the thought that the builder's art could go no lower, and that change could mean nothing but improvement. The first step forward came in the revival of Gothic by the two Pugins. The father, Augustus Pugin, was a native of France who became, at an early age, English in habit and speech by settlement in London, and won great and just

fame, before his death in 1832, by his beautiful, accurate, and, in the full sense of the word, masterly drawings of Gothic architectural work. His son, A. N. Welby Pugin, was devoted to the same artistic cause, and both by his writings and by his ecclesiastical erections, became the real reviver of Gothic in this country. His son again, Edward Welby Pugin, who died in 1875, was an architect of distinguished ability. In the Houses of Parliament, Sir Charles Barry furnished a noble specimen of the most ornate style, the Perpendicular Gothic, and the building is regarded, by many good judges, as the finest British edifice since St. Paul's. The great man in modern Gothic was Sir Gilbert Scott, who restored, with eminent success, nearly all the cathedrals and countless parish-churches. One of the finest things in this style is All Saints, Margaret Street, in London, due to Mr. Butterfield, who is well skilled in imparting beauty and variety of colour by means of stone, brick, marble, and mosaic. Mr. G. E. Street was another great Gothic architect, to whom are due the Law Courts in London, many new churches and much restoration. Mr. Burges, Mr. J. L. Pearson and Mr. Bodley, have done good work in the same style. Mr. Waterhouse is noted for the Manchester Town Hall and the Natural History Museum at South Kensington. Italian (Renaissance) was also well employed by Sir Charles Barry in many public and private palatial buildings. St. George's Hall, Liverpool, is a grand specimen of modern Graeco-Roman. In domestic architecture, the later years of the reign have shown much improvement, partly due to the Gothic revival. After many failures, the style was adapted to modern wants for dwelling-houses, and many beautiful, convenient, and interesting homes for private families have been erected. The "Queen Anne houses" of London suburbs are, in many instances, picturesque in form, with beauty and variety due to the judicious combination of brick, stone, timber, and quaintly-devised work in wood and iron.

It is the glory of British art, in the latter half of the nineteenth century, that it has penetrated, with humanizing and refining effects, into every department of our life, and every class of the nation. There is not an abode in the land, from the palace to the cottage, which does not, in some form, show the change. There are few articles of domestic use which do not betray the influence of a revival of taste with which we must specially connect the names of

the Prince Consort and John Ruskin. Every jug and tea-cup, every carpet, rug, and wall-paper, and the pattern and hue of innumerable things of ornament and use, show a regard for, and an attainment of, beauty in design and colour which were rare, indeed, in the earlier years of Victoria's reign. The initiation of this change, in the Great Exhibition of 1851, and in its artistic offspring at South Kensington, and the establishment and development of art-education, have been already noticed. The British people have been taught that art "may be domiciled in a middle-class English home as well as in a Venetian palace". The chair-covers due to the influence of the School of Art Needlework at South Kensington have given us embroidered wreaths of honeysuckle, jessamine, Virginia creeper, and other beautiful works of nature in botany, to supersede the old anti-macassars which, devoid of taste, used to catch on the buttons of gentlemen's coats in the old-fashioned drawing-room. Our chairs, curtains, screens, doyleys, and table-mats show charming imitations of leaf, fruit, and flower, wrought by female hands with the loving and faithful study of nature inspired by the illustrious author of *Modern Painters*. The design and arrangement of furniture, the attire of women, the dressing of ladies' hair, the laying out of a dinner-table, the display of goods in the shop-windows, the chimney-ornaments, the fire-hearths with their coloured tiles, manufactured goods of every kind show that true taste is not dependent on large outlay, but on the faculties of discerning and devising the beautiful, and of manipulative skill in passing from conception to creation, and giving substance to an idea. Decorative art in our buildings, both public and private, owes much to Mr. Owen Jones, author of the valuable *Grammar of Ornament*, who was superintendent of works at the Exhibition of 1851, and afterwards director of decorations at the Crystal Palace, where his designs may be seen in the Alhambra, the Egyptian, the Greek and the Roman courts. Sir M. Digby Wyatt, who was secretary to the Royal Commissioners for the Exhibition of 1851, and afterwards Slade professor of Fine Arts at Cambridge University, did good work in the same direction. The use of terra-cotta has been very effective of late years in architectural work, and must in justice be closely connected here with the names of George Tinworth, an admirable artist in this material, and of his employers, Messrs. Doulton of the Lambeth

art-pottery works in London. Alfred Stevens, the sculptor, was the author of much excellent metal-work designing for the manufacturers of Sheffield. The improvements in floor-cloth called Linoleum and Lincrusta are the inventions of Mr. F. Walton, who used pulverized cork, linseed-oil, and resin to produce new materials much superior to the old oil-cloth. Lincrusta, which also contains cellulose and paper, has beautiful patterns in raised forms resembling, but much cheaper than, work in embossed leather.

Another artistic mark of our time is seen in the accessibility of treasures, old and new, to the great body of the people. The Bethnal Green Museum, and the annual exhibition, at Burlington House, in London, of the works of "old masters", and of deceased masters of the British school, show the readiness of possessors of these productions of genius to share the pleasure of inspection with their fellow-citizens. Many of the new galleries of art, both in London and the great provincial towns, have been already mentioned. The Dulwich Gallery, in a southern suburb of London, is specially rich in Dutch paintings, and was bequeathed, for the most part, by Sir P. F. Bourgeois, who died in 1811. The National Gallery in London was founded in 1824, but the building in Trafalgar Square was not opened to the public till 1838. The beginning of this collection was the purchase for the nation, in 1824, of Mr. Angerstein's pictures for the sum of £57,000, at first exhibited in the former owner's house in Pall Mall. Purchases, gifts, and bequests rapidly increased the gallery, Lord Farnborough and Sir George Beaumont being among the chief earlier donors. In 1847, the gallery was enriched by Mr. Vernon's bequest of 155 pictures of the British school. In 1855, a useful change in the system of administration made Sir Charles Eastlake, President of the Royal Academy, Director of the institution. His taste, his knowledge of Italian art, and his zeal for the interests of the national collection, were of the utmost service. The increase of the number of pictures caused enlargements of the building in 1861, 1869, 1876 and 1887. In 1856, Turner's bequest of 105 of his oil-pictures and of a vast number of water-colour and pencil-drawings from his own hand added enormously to the value of the collection, and the acquirement, by purchase, of Sir Robert Peel (the great statesman)'s collection gave the public about 70 Dutch and Flemish pictures of the highest importance as good productions of the best

artists in those schools. The Italian masters are nearly all represented, the finest "Raphael" in the world, as is believed, the *Ansidi Madonna* from the Blenheim gallery, having been purchased for the enormous sum of £70,000. In 1876, ninety-four pictures of the "foreign schools" were bequeathed by Mr. Wynn Ellis, and the whole collection now contains over 1300 pictures, and rivals in merit the finest galleries of continental Europe. The Manchester Art Treasures Exhibition of 1857 was a revelation to European connoisseurs, and to most of the British public, concerning the wealth of the private collections of pictures in this country. Miniatures, enamels, armour, Etruscan vases, and historical portraits helped to make such a display as had never yet been seen, and the success of this show gave a great impulse to the public taste and regard for art. The Scottish National Gallery, in Edinburgh, was opened in 1858, and has many fine pictures by native artists, with excellent productions of foreign schools.

In music, the nineteenth century has seen enormous progress made in this country. During the three first decades, there was little or no advance in musical science, and native production was confined to the beautiful glees and operettas of Henry R. Bishop, director of music, in succession, at Covent Garden and Drury Lane Theatres. John Braham, the great tenor, born in London of German-Jewish parents, was a concert-singer of rarely equalled powers, especially in the "Death of Nelson" and other patriotic songs. A revival came with the foundation, in 1823, of the Royal Academy of Music, which received its charter in 1830, and did much good service in training vocalists and instrumentalists of both sexes. A taste for oratorio had been created in the middle of the eighteenth century by the wonderful Handel, but even of his grand work there was no great performance in London between 1791 and 1834, when a "Musical Festival" was held in Westminster Abbey. Before this time, the provinces had begun to have musical performances on a large scale. In September, 1823, the first Yorkshire musical festival of the century took place in the nave of York Cathedral, with the famous Madame Catalani as chief vocalist, supported by our own sweet singer, Mrs. Salmon, with a band and chorus of between 400 and 500, the chorus being composed of singers from Lancashire and Yorkshire. This great success was followed, in the same place, by similar Festivals in 1825, 1828, and

1835. The Norwich Festival arose in 1824, and Birmingham, Worcester, Gloucester and Hereford were distinguished in the same way. The advance of choral music was promoted in London by the Westminster Abbey meeting of 1834, which led to the foundation of the Sacred Harmonic Society, with its fine performances of oratorios at Exeter Hall, in the Strand. In London, the wealthy lovers of music were fairly provided for by the "Concerts of Antient Music", and by the Philharmonic Society, which gave good performances of orchestral works, and made their patrons acquainted with many symphonies and overtures previously unheard. At the Opera-houses in the capital, Italian music of the dramatic style was flourishing, but there was little good music within reach of persons of moderate means, and the art was, at the opening of the Victorian period, practically ignored at the public schools and universities, cultivated in a feeble and ridiculous fashion at "academies" and "seminaries" for young ladies, and grievously neglected or grossly maltreated in the services at the cathedrals and parish churches. In country parishes there were few organs, and the hymns were sung to the accompaniment of grotesque village bands of fiddle, flute, key-bugle, violoncello, and bassoon. The State did nothing for the art in the country which, in the middle ages, was the most musical land in Europe, and whose people still possessed, as has been amply proved during the long reign, a natural power of appreciation and of intelligent performance not surpassed by any nation. In 1849 the Bach Society, dissolved in 1870, brought before the British public some of the compositions of one of the greatest of German masters, and in 1875 the Bach Choir, conducted by Mr. Otto Goldschmidt, continued the work. In 1855 Mr. Henry Leslie's Choir, dissolved in 1880, brought choral singing to such a degree of excellence that the members, at the Paris Exhibition of 1878, carried off the prize in competition against the best choirs from all parts of continental Europe.

In 1857, oratorio was performed on a scale of magnitude and power previously unapproached at the "Great Handel Festival" held at the Crystal Palace. The performances were preliminary to an intended Commemoration Festival in 1859, in the centenary of the great composer's death, and the greatest success was attained, under the direction of the Sacred Harmonic Society, on the three June days when the noble building of glass and iron rang with the

sounds sent forth by a mighty organ, a band of 386 instrumental performers, a chorus of 2000 voices, and solo-singers including our fine native vocalists Clara Novello, Miss Dolby (afterwards Mme. Sainton-Dolby), Sims Reeves, and Weiss. The conductor was Mr. (afterwards Sir Michael) Costa, the famous musical director of the Italian Opera at Covent Garden. The performances proved that London alone could furnish a number of competent musical artists, both professors and amateurs, more than sufficient to supply an orchestra of much larger dimensions than the one erected for that occasion. In 1859 the Commemoration Festival took place at the Crystal Palace, again in June, with Clara Novello, Miss Dolby, Sims Reeves, and Weiss as the chief British vocalists, and now with a band of 460, and a chorus exceeding 2700 voices. This brilliant success made the Handel Festivals triennial. In 1865, Mr. Santley, the finest baritone ever heard, lent his aid to the performances, the band and chorus on this occasion reaching the enormous number of 3361. In 1868, Mr. Foli, whose Italianized name is really that of an Irish "Foley", came forward as one of the finest bass-singers of the age, and the chorus was increased to 3065 voices, the band remaining at its former number of 495. In 1871 the late lamented Madame Patey succeeded Madame Sainton-Dolby as contralto, Sims Reeves, Foli, and Santley retaining their supremacy as tenor, bass, and baritone. The retirement of Clara Novello had for some years left the way open, in the chief soprano parts, to such distinguished foreign performers as Titiens, Rudersdorff, Adelina Patti, and Christine Nilsson, the contralto singing being shared with Madame Patey by the charming voice of Trebelli-Bettini. In 1874, the excellent tenor Edward Lloyd was heard, for the first time on these grand occasions, in addition to the perennial and unrivalled Sims Reeves, whose "Sound an Alarm", from *Judas Maccabæus*, can never be forgotten by those who have been privileged to hear it. The stupendous chorus from *Joshua*, "See the Conquering Hero Comes!", was one of the great features of this and other Handel Festivals. In 1877, Madame Albani, the brilliant Canadian, was added to the sopranos, and Mr. Lloyd was now principal tenor, on the retirement of Reeves from the arduous work of singing in so vast an area. In 1880, Miss Anna Williams, and Mr. Barton M'Guckin, a beautiful tenor, appeared among the British vocalists, Sir Michael Costa, as on all previous occasions,

officiating as conductor. In 1882, the Sacred Harmonic Society was dissolved, and the Crystal Palace Company took up the sole management. In 1883, the duty of conducting was assumed, at very short notice, by Mr. August Manns, on the illness of Costa. The new conductor had long been in charge of the Crystal Palace Band, and performed his new duties with great success. The attendance was the largest on record at these performances, amounting to nearly 88,000 persons during the three days. In 1885, a special festival greeted the two-hundredth anniversary of Handel's birth, the conductor again being Mr. Manns, his great predecessor having died in the previous year. In 1888-91-94-97 the Festival was repeated with the usual success, again under the conductorship of Mr. Manns.

The famous Leeds Musical Festival was started in September, 1858, the performances being given in the new Town Hall, furnished with one of the most powerful organs in Europe, built in London by Gray & Davison, and provided with every mechanical contrivance for enabling a skilful performer to execute all styles of music with just effect. The public who attended were delighted and surprised by the vigour and skill of the Yorkshire chorus-singers, who gained on this occasion a renown which they have never lost. There was no repetition of these performances for sixteen years, but from 1874 the renewed Leeds Festival became triennial, always satisfying the most expert and exacting musical critics, and owing much of its success to the energy and ability of its very popular hon. secretary, Mr. Frederick Robert Spark, J.P., of Leeds. Many new compositions, such as Sterndale Bennett's cantata *May Queen*, Macfarren's oratorios *Joseph* and *King David*, C. H. Parry's *Ode on St. Cecilia's Day*, and A. S. Sullivan's *Martyr of Antioch* and *Golden Legend*, were first publicly given on these occasions. Before leaving the subject of choral performances out of London, we may note that during these later years, the choir-singing of the people of Lancashire, Yorkshire, and Wales has attained an excellence hitherto unknown.

There has been a great improvement in the manufacture of musical instruments, the control of the organ, especially, having been much facilitated by the pneumatic and electrical inventions, respectively, of Mr. Willis and Mr. Bryceson. The music in churches has been greatly changed for the better by the efforts of

the party known as "High Church", and through the introduction, in cathedrals, of the nave-services which began, on the first Sunday of 1858, at Westminster Abbey, an example soon followed at St. Paul's Cathedral, and at most of these grand ecclesiastical buildings. The cause has been much helped by the gatherings of church choirs in each diocese for musical services in the several cathedrals. There are now about one hundred of these associations, the first of which met in Lichfield Cathedral in 1856. For music of the higher class, in the orchestral style, admirable service has been done by the Crystal Palace Saturday Concerts, instituted in 1855, fully established in 1860, always conducted by that excellent musician, Mr. Manns, and fostered by Sir George Grove, editor of the great *Dictionary of Music*, and for some years secretary to the Crystal Palace Company. Through these two men English amateurs of music heard a large number of works previously unknown by public performance in this country, especially those of the great German composers, Schubert and Schumann. The Crystal Palace band has, under the direction of Mr. Manns, been long renowned as one of the finest in the world. In London, for a period of thirty years, the late Sir J. Barnby rendered eminent service to the cause of classical music by his famous choir, and as conductor for the London Musical Society and the Albert Hall Choral Society. The metropolis and the provinces now contain hundreds of choral and orchestral associations, and, apart from what is called "popular music", the statement, once so freely advanced, that "the English are not a musical people", has long received decisive, complete, and, it may well be believed, final refutation.

The improvement of musical performances for the great body of the people may be fairly traced, in some of its forms, to the eccentric and excitable French entertainer, Louis Antoine Jullien, who settled in London in 1838, and quickly gained vast popularity by his large and excellent bands, aided by good vocalization. Some of his pieces, such as his own "Monster" and "British Army" Quadrilles, were denounced as "clap-trap" and mere childish noise, but Jullien knew his business well, and, while he tickled the ears of the ignorant and, it may be, tasteless listeners by these productions, he always included in his programmes compositions of a very different class, and instilled, by degrees, a relish for the work of real genius. For nearly twenty years he was before the public in this

capacity, and his merit is clearly proved by the fact that, in his own line, he has had no successor. It was in February, 1859, that the famous Monday Popular Concerts began at St. James' Hall, in Piccadilly, London, under the direction of Mr. Arthur Chappell. On April 4th, 1887, the one-thousandth performance was given, an event without parallel in the history of music. The programme was composed of pieces in what is called "chamber-music", interpreted by the ablest living performers on the pianoforte, the violin, and the violoncello. These performers we need not name, as all the most eminent were of foreign birth. With the Italian Opera at Covent Garden, Her Majesty's Theatre, and Drury Lane we are not here concerned, as the only native performers at those places have been, and that but rarely, Mr. Sims Reeves and Miss Louisa Pyne, both equal, as accomplished singers, to any that Italy or Germany could show. In the many attempts made, during the earlier part of the Victorian age, to initiate and establish a British opera, for music written by native composers, and sung by native executants, John Barnett, Michael W. Balfe, and W. Vincent Wallace played the chief part as writers of some charming works. Only in these later years has an English *opéra comique* become thoroughly successful through the work of Mr. Gilbert as librettist and Sir Arthur Sullivan as musical composer. In other directions we can here only name Sterndale Bennett, Hatton, Smart, Pierson, Ouseley, Horsley, Macfarren, Mackenzie, Stanford, Stainer, Hamish MacCunn, Dr. Wesley, and Sir John Goss as able composers in various styles who have done much to raise the standard of musical writing.

We turn, lastly, to the subject of musical education which has, within the last half century, undergone so complete a revolution. In social music, we find hundreds of men and women able to play well on the piano and other instruments for units competent thus to amuse themselves and others at the beginning of the reign. The violin has become a common instrument for ladies, and there are good orchestras wholly composed of lady-performers. In singing, for the body of the people, the beginning of change came with the work of John Hullah, born at Worcester in 1813, and a student of the Royal Academy of Music. In 1840, the Committee of Council on Education began to inquire into the condition of vocal music as taught in the elementary schools, and Mr. Hullah was

encouraged in opening singing-classes at Exeter Hall, London. Thousands of teachers were there trained by him in singing between 1843 (when the training-colleges came under inspection, and music was included in the curriculum of studies) and 1860. In 1850, the Tonic Sol-Fa system of teaching singing, based upon the fact that there is but one scale of notes in music, raised or lowered according to the pitch of the key, was made prominent by the energetic advocacy of the Rev. John Curwen, and this method, by degrees, almost superseded that of Hullah. In 1853 the Tonic Sol-Fa Association was founded. In 1874, the new Education Code offered grants for singing in the elementary schools, and the first year's earnings under this head reached about £90,000. About 80 per cent of the children in the English primary schools who can sing from notes, or perhaps $1\frac{1}{2}$ millions of pupils, are taught on Curwen's system. In addition to the excellent work done by the Royal Academy of Music, under the direction of Cipriani Potter, Charles Lucas, Sterndale Bennett, and Macfarren, musical education of the higher class has been greatly promoted by newer institutions. In 1873, the National Training School of Music was founded, under Mr. (now Sir Arthur) Sullivan. In 1883, the Royal College of Music owed its existence mainly to the efforts of the Prince of Wales, and was started on its career with funds sufficient to maintain above fifty scholarships. The growth of musical taste was further proved by the establishment, in 1880, through the aid of the Corporation of London, of the Guildhall School of Music. In 1880 there were 62 pupils: six years later, 2500 learners were under the charge of 90 professors. In 1886, the school was removed to the fine building on the Victoria Embankment. Trinity College and other private schools carry on the work of musical teaching, and the Royal Academy holds examinations in all parts of the country. The College of Organists applies severe tests, through the best organists in the kingdom as examiners, to the numerous candidates for the diplomas awarded to associates and fellows. At the great public schools, and at Oxford and Cambridge, a great change has come in the zeal which has produced good services at the chapels, school orchestras, and choral societies, and musical associations, chapel-choirs, and concerts at nearly every college in both Universities. The history of music and the theory of harmony have been dealt with in many able works, original and

translated from the German, and the very large musical public of the present day has been well served in the pages of several able and impartial periodicals devoted to the one subject, and by the competent critics of the daily and weekly newspapers. The great music-publishers, Novellos, Boosey, Chappell and others have supplied editions of standard works at a very cheap rate, so that, as early as 1846, the *Messiah* and the *Creation* were being issued in a few sixpenny parts, and many complete oratorios may now be purchased for a shilling. The organ-works of Mendelssohn, first published in this country at 1½ guineas, can now be bought, with additions, for 1s. 3d. Moral advantage to the community can scarcely fail to have accrued from the increased devotion to an art and an amusement which, of all others, is least susceptible or creative of any influence for evil.

In the first three decades of the century, the chief figures on the British stage were John Philip Kemble, his sister Mrs. Siddons (who retired in 1812), Charles Mayne Young, Charles Kemble, and Edmund Kean, in tragedy; with the versatile Elliston, of great merit also in tragedy, Munden, the elder Mathews, and John Liston (the famous "Paul Pry"), in comedy. When the Queen came to the throne, the stage was still subject to the monopolies of the Stuart day, and the "Patent Theatres", Covent Garden and Drury Lane, claimed the sole right of performing "legitimate drama", shared by the Haymarket Theatre during the summer months. Under the license of the Lord Chamberlain, the Lyceum and the St. James's could have musical performances, the Olympic and the Adelphi could produce "burlettas", or light, comic musical dramas. All these last were "minor houses", and all other metropolitan theatres that gave dramatic representations, or anything beyond ballets, pantomimes, and equestrian performances, were simply illegal. The Surrey, the Victoria (formerly the Coburg), in Waterloo Road, Sadler's Wells, and, at the East end, the City of London, the Pavilion, and others, were permitted to exist, while the Strand Theatre openly defied the Lord Chamberlain's authority. All these distinctions were swept away by the Act of 1843, which gave to the Lord Chamberlain the power of licensing theatres throughout the metropolitan district, and confirmed his right of censorship over plays. Outside certain limits, the local justices had the licensing power, and the Local Government Act of 1888 trans-

ferred this power from them to the County Councils, who could, however (as they have done in most cases), leave the matter still in the magistrates' hands. The increase of the number of metropolitan theatres (a statement which also applies to all the great provincial towns) is shown by the fact that in 1892 the Lord Chamberlain licensed thirty-seven houses in London, while six were licensed by the County Council in localities outside his jurisdiction. It must be observed that the population of London has more than doubled during the period, and that the theatres, which are far more prosperous, financially, than at the beginning of the reign, have now to compete with a large number of music-halls and an enormous amount of musical performance unknown at the former time. We may here name the chief players of the earlier Victorian time in Macready, Phelps, Charles Kean, Helen Faucit (afterwards Lady Martin), Fanny Kemble, Ellen Tree (Mrs. Charles Kean), and Mrs. Warner as actors and actresses in serious parts, and Mrs. Stirling, Mr. and Mrs. Keeley, Madame Vestris, the younger Charles Mathews, Compton, Wright, Paul Bedford, Benjamin Webster, Buckstone, T. P. Cooke, William Farren, and Tyrone Power in the lighter drama and various styles of comedy. Between 1837 and 1843, Macready, as manager at Covent Garden and at Drury Lane, with excellent companies, gave many of Shakespeare's plays, with the best of Sheridan Knowles' and Bulwer's. Between 1837 and 1853, Benjamin Webster, as manager of the Haymarket, brought out Bulwer's *Money*, with an admirable cast including himself, Macready, Miss Faucit, and Mrs. Glover, and farces and comic dramas, with Buckstone, Madame Vestris, Charles Mathews, and other good players. In 1852, the famous *Masks and Faces*, by Charles Reade and Tom Taylor, was produced at the Haymarket, with Webster as Triplet and Mrs. Stirling as Peg Woffington. Webster was, in 1853, succeeded at that theatre by Buckstone as lessee and manager. The Lyceum, from October, 1847, to March, 1855, under Mathews and Vestris, was famous for Planché's extravaganzas, with William Beverley's scenery, and for the production of the farce called *Box and Cox*. At the Adelphi, under Frederick Yates, Mrs. Keeley, O. Smith, Wright, Paul Bedford, and the lessee himself, with T. P. Cooke in nautical drama, and Power in Irish parts, were the chief performers up to 1844, and then Madame Celeste, unrivalled in melodrama, appeared in Buck-

stone's *Green Bushes*, with Paul Bedford and Wright. In 1853, Webster and Madame Celeste assumed the joint management of the Adelphi, where the former remained for more than twenty years. In 1850, Charles Kean took command at the Princess's Theatre, in Oxford Street, and began his series of Shakespearian revivals, with great attention to costume and stage-effects. His period of management, ending in August, 1859, was marked, at various times, by the appearance of such admirable artists as the Keeleys (husband and wife), Alfred Wigan, Harley, Kate Terry, Hermann Vezin, and Dion Boucicault. Charles Kean himself, not distinguished in Shakespearian parts, but good in melodrama, won high repute in *The Corsican Brothers* (1852), and in *Louis XI.* (1855).

A notable campaign in Elizabethan drama was started in 1844 by Samuel Phelps, when he took the management of an old-fashioned, broken-down suburban theatre at Sadler's Wells, in the north of London. The courage of the man was not less wonderful than his skill and accomplishments as an "all-round" actor, or than the success which attended the seemingly hopeless effort, at that day, of educating a rude populace into the understanding and liking of the most "legitimate" drama. During the eighteen years of this admirable man's control, he produced thirty-one Shakespearian plays, with many works of other Elizabethan dramatists, and of the eighteenth century writers of comedy. As Sir Giles Overreach (Massinger's *New Way to Pay Old Debts*) Phelps was held to be unequalled, and in Shakespearian characters, he was excellent, on the one hand, in Wolsey, Lear, Brutus, and Macbeth, and, in comedy, as Malvolio, Bottom, and Shallow. The pure Shakespearian text was given, with careful, complete, tasteful, and ingenious mounting of the plays. The whole history of British drama in the nineteenth century presents us with no more satisfactory, well-earned triumph of conscientious and judicious efforts. In 1861, Mr. E. A. Sothorn made a great hit at the Haymarket, under Buckstone's management, by his Lord Dundreary in *Our American Cousin*, a success followed up by his David Garrick in Mr. T. W. Robertson's piece so called. Under Webster, at the Adelphi, *The Dead Heart*, by Watts Phillips, with the lessee in the chief part, was a great success, and Boucicault's *Colleen Bawn* was another. One of the greatest dramatic geniuses of the Victorian

or of any age appeared in 1853 at the Olympic Theatre. This was Frederick Robson, equally great in comedy, farce, and burlesque, with a marvellous power of passing, in an instant, from the broadly humorous to the deeply touching and pathetic, and of mingling the ludicrous with the terrible in stage-parodies of Shylock and Macbeth. It is needless to mention his chief impersonations; the names could mean nothing for those who never saw this wonderful man; they are superfluous for all who, like the present writer, heard and beheld in him what could never fade away from the memory.

Of later times we must forbear to write much. In 1858, the Strand Theatre rose to eminence under the management of Miss Swanborough, and became noted for the burlesques written by the Broughs, H. J. Byron, Halliday, and others. Miss Marie Wilton there acquired high repute, and in 1865 she joined Mr. Byron in managing the Prince of Wales's Theatre. A new era for the stage opened with this event. The comedies of Mr. Robertson—*Ours*, *Caste*, *Play*, *School*, and *M.P.*—were produced with great success, and it was at this time that Sir S. B. Bancroft, Mr. Hare, Miss Neilson, Sir H. Irving, Mr. and Mrs. Kendal, Mr. Charles Wyndham, and Miss Ellen Terry came before the dramatic world. The rise of Sir H. Irving, through his Digby Grant in *Two Roses*, his Mathias in *The Bells* (1871), his Charles I., Richelieu, a double part in *The Lyons Mail*, and Louis XI., brought this consummate manager and excellent actor, in 1878, to the position at the Lyceum which has made him, with his chief supporter, Miss Ellen Terry, renowned through the world. His Shakespearian revivals, with *Faust*, *Olivia*, and *The Corsican Brothers*, need no word of comment. In 1881, a new man, Mr. Wilson Barrett, took the Princess's Theatre, and had great success with such stirring and sensational plays as *The Lights o' London*, and *The Silver King*, in which he played the chief male parts with much ability and power. The late Sir Augustus Harris for some years made Drury Lane Theatre the scene of sensational melodramas and of pantomimes of marvellous spectacular effect. In 1870, the Vaudeville Theatre was opened, and it was there that Mr. H. J. Byron's *Our Boys* beat all the records of theatrical success by a continuous run of over four years, a fact due not merely to its power to amuse, but to the vast increase of population, and to an influx of provincial visitors to London to a degree unknown in former times. We must conclude

with a reference to the most laughter-provoking actor of these modern times in Great Britain, Mr. J. L. Toole, inimitable in depicting the manners of men who have passed from a shop-counter to vulgar opulence in a private and leisurely life.

CHAPTER XXVI.

THE ARMY AND NAVY.

Reduction of the army after the peace of 1815—Neglected condition of the soldiers—Warnings of Sir John Burgoyne and the Duke of Wellington—A Militia force established—Changes in army administration—Mr. Cardwell's reforms—Improvement in arms—The Volunteer Army—Shooting competitions at Wimbledon and Bisley—Statistics of the Volunteers—Training of officers and men in the military schools and in camps—Improved condition of the soldier—The Victoria Cross—Statistics of the Army—The Navy—The old war-ship and the modern iron-clad—Huge guns and torpedoes—Distribution of the navy—System of manning—Comparison of the French, Russian, and British navies.

In coming, lastly, to inquire into the means which we possess of defending and maintaining the magnificent fabric of wealth and power now presented in the British Empire, we must premise that the importance of this subject is not to be gauged by the small space devoted to it in these pages. With all its interest and value in a history of British progress during the nineteenth century, the matter is, in its main bearings, very simple and very well known to general readers, and needs only a brief statement of the changes made in our own military and naval administration, with a glance at the vast revolution in armaments and modes of warfare which we have effected in common with all civilized nations.

After the peace of 1815, our regular army was diminished from over 200,000 men to about 80,000, a force quite insufficient to maintain at once our supremacy in India, to guard our colonies from savage tribes and from other foes, and to preserve peace and order at home in the existing lack of a regular police. A foolish economy, demanded by a blind and ignorant public opinion, compelled further reductions, and the non-combatant departments were starved in favour of the small fighting element, so that it was at last impossible to put into the field even one brigade fully-equipped for war. At the time of the Queen's accession, the regiments were

very weak, both in men and horses, and when extra troops were needed for colonial service, battalions were sent out largely made up of raw recruits, who had not even uniforms to wear at the time of embarkation. The Duke of Wellington, at this period, described the rank and file of the British army as "the scum of the earth". We have noted the treatment of the soldier in regard to flogging, and his condition in other respects corresponded thereto. He was ill-lodged, ill-fed, and apparently regarded as a mere unreasoning animal. He was enlisted for life, or for a term of twenty-one years, until 1847, when recruits were permitted to enlist for a service of ten years. Life in barracks was monotonous, dreary, and comfortless, and the public-house was the soldier's only possible resort for warmth, light, and recreation. His dress was wholly unsuited, on foreign service, for the hot or cold climate to which he might be sent, and men died by hundreds from heat-apoplexy, sunstroke, and cholera, largely due to grossly unfit food and clothing. Salt-beef, salt-pork, rum and biscuit were the soldier's fare under tropical suns, and the remonstrances of the wise and humane among the British public who cared for these things were treated with general contempt by the military authorities as the utterances of "a parcel of Radicals". Of the condition of the wives and families of the married soldiers, including the sergeants and a small percentage of the privates "married with leave", it is best to state nothing more than that it was a disgrace to the service, and that the domestic arrangements in barracks were only worthy of savages. The Prince Consort was the first man who successfully dealt with this last scandal, and to his influence we may ascribe the construction of special quarters for married soldiers, now to be seen in all our barracks. The officers were, in their chief elements of character, British gentlemen, and no higher praise could be given. They knew, however, little or nothing of military science, and trusted to courage and brute force for success in the field.

At the time now dealt with, the year 1837, we had, practically, no reserves. The Militia had dwindled away to about 120 adjutants and 1000 aged sergeants in the county-towns, and no force of men was ever mustered. The Yeomanry, numbering about 18,000, were called out annually for a few days' training, but for real military purposes they were then an almost useless body. It was in vain that the Duke of Wellington pointed to steam as

having bridged the Channel, and our greatest soldier since Marlborough was regarded, on this subject, as a mere dotard by party politicians dreaming of universal peace, disarmament, arbitration, and other matters yet in the distant future. At the end of 1846, when Lord John Russell was prime minister, General Sir John Burgoyne called the attention of the ministry to the danger of invasion. The writer of the paper was the son of the Burgoyne who surrendered at Saratoga. Charles James Fox, his father's political and personal friend, was one of his godfathers. After a course of mathematics and fortification at Woolwich Military Academy, he served at the capture of Valetta in 1800, and in Sicily and Egypt in 1806, as chief engineer. He helped to bury Sir John Moore at Corunna, and he served under Wellington throughout the Peninsular War. He was with Sir Edward Pakenham in the expedition against New Orleans in 1814, and only missed Waterloo through the appointment of another officer in place of himself, when Picton earnestly requested to have Burgoyne with his division. When he wrote his famous official letter to the Duke of Wellington as Commander-in-chief, Burgoyne was Inspector-General of Fortifications. From his experience and position we may well suppose that he knew his business, and thoughtful men were startled when he pointed out that, to resist an invading force, we could not put into the field, in Great Britain, more than 7000 or 8000 men; that, in the whole British Isles, we had not field-guns for 20,000 men, and that we had no reserve-stores of muskets and other implements of war. In 1848, a letter of the Duke of Wellington's on the same subject found its way into the newspapers. Lord Palmerston, the Foreign Secretary, had already, in December, 1846, urged his colleagues to raise a loan for the purpose of erecting works to defend our dockyards and the chief commercial ports. No heed was paid to this appeal, and it was not until 1859, when Palmerston was himself at the head of the ministry, that measures for that end were at last adopted. One effect, however, was produced by the Duke of Wellington's and Sir John Burgoyne's declarations as to the defenceless state of the country in case of invasion. A real militia force, fixed at 120,000 men, to be raised by voluntary enlistment, was created under the Act of 1852. In 1859, this militia ceased to be local, and could be employed anywhere within the British Isles. The militiamen could

enlist into the line, and, under certain restrictions, the regiments might serve abroad. In 1869, the Crown was enabled to place the force under the generals commanding military districts, and in 1871 the control was transferred to the War Office from the Lords-lieutenant, who now have only the power of recommending gentlemen for commissions. The militia has thus become a really serviceable force, ready at any time for garrison-duty at home and abroad, and, with very brief training, fit to take the field. The adjutants are young officers changed every five years. The yeomanry now have efficient adjutants and instructors from the regular army, also changed every five years, and they constitute a very useful force.

The total break-down of our military system, or no-system, in the Crimean War was the first event which revealed to the nation the absolute need of reforms in army-administration. One immediate result was a complete change in the machinery of army-control. Military affairs were at that time regulated by the Commander-in-chief, the Secretary at War, the Master-General of the Ordnance, and the Treasury. The Commander-in-chief, representing the sovereign, dealt with discipline, promotion, arms, equipment, and the distribution of honours. The Secretary at War, a politician, obtained money from the House of Commons and superintended its expenditure. One curious result was that the Commander-in-chief "could not", as the Duke of Wellington once pointed out, "move a corporal's party from London to Windsor without permission from the Secretary at War, because the shifting of troops would cause expense". The Master-General of the Ordnance, always a distinguished and experienced officer, was the adviser of the Cabinet on all military affairs, and had charge of the artillery, the engineers, the manufacture and safe-keeping of all warlike stores, for both army and navy, and of the construction and maintenance of fortifications and barracks. The Treasury controlled the Commissariat, a civil department, and its officers, with no soldiers at their orders, were little more than Treasury-clerks. There was no military transport, and the department was supposed to provide what was needful, at an hour's notice, for service in a campaign. Much of this complicated absurdity was now swept away. The offices of the "Secretary at War" and of Master-General of the Ordnance were abolished, and a "Secretary for

War", as a fourth Secretary of State, assumed the duties of both. The control of the artillery and engineers was now given to the Commander-in-chief, and the Commissariat was placed under the War Office.

The next event which aroused the British public on the subject of army-reform was the Franco-German War. The wonderful successes largely due to almost perfect organization in the German army caused vital changes in our military system. In 1871 the work was begun by the War Secretary, Mr. Cardwell, under Mr. Gladstone as Premier, and Colonel Stanley, under Lord Beaconsfield, and Mr. Childers, in Mr. Gladstone's second administration (1880-1885) brought it to completion. Mr. Cardwell's work was very important. The War Department had its business divided into three great sections, respectively under the Commander-in-chief, the Surveyor-General of the Ordnance, and the Financial Secretary, all acting under the Secretary of State. The business of these three departments was concentrated at the War Office in Pall Mall, London. The Commander-in-chief now had the control of all the land-forces of the Crown, regular and auxiliary, at home and abroad, instead of only over the regular army in the British Isles. The abolition of purchase of commissions made the promotion of officers depend upon fitness and good service instead of upon length of purse, and the day of incompetent commanders, in every rank, came to an end. The system of short service, started by Cardwell, for the first time enabled us to establish an efficient force of reserves. Men were henceforth to be enlisted for twelve years, divided into two periods of six or eight years with the colours, and six or four years in the reserve. The same great reformer also introduced the principle of localizing military service, and of linking militia-battalions to those of the line-regiments, and so more closely connecting these two branches of the infantry forces. The staff system was reformed, and the Quartermaster-General, instead of having co-equal rank and authority, became virtually only an officer of the Adjutant-general's department. Mr. Cardwell also augmented our forces for home defence by recalling 20,000 men from the great self-governing colonies, Canada, Australia, New Zealand, and the Cape of Good Hope, and encouraging those governments to raise local forces. The important plan of localization, which was not extended to the cavalry, has divided Great Britain and Ireland into 102 Regimental

Districts, each containing the depôt, or head-quarters, of its territorial regiment. The military units, or regiments, now became known by local names instead of by numbers. Thus, the 6th of the line is now called the Royal Warwickshire, the 3rd (the Buffs) is the East Kent, and so on. Each of these county-regiments has at least two battalions of the line, and one, two, or three of militia, and also includes the Volunteer infantry belonging to the district, so that the whole infantry force of the country is divided into bodies embracing regulars and auxiliaries of all degrees of efficiency and training. Twelve artillery divisions of the country, in groups of counties, include the royal artillery and the militia and volunteer divisions of that arm. The whole of Great Britain is further divided into eleven District Commands, each under a Major-general; Jersey forms another, Guernsey and Alderney another; while Ireland, with a special "Commander of the Forces", has four of these districts. The use of breech-loading rifles for the infantry was adopted generally in European armies after the Austro-Prussian War of 1866, when the Prussian needle-gun wrought such havoc among opponents armed only with muzzle-loaders. The French, in 1859, against the Austrians in Italy, first showed the utility of rifled cannon. Our own army was the first that used breech-loading field-guns. In regard to field-artillery, we may note that whereas, in 1819, we only had 22 horsed-cannon in the British Isles, in 1852 the number had risen to 120, in 1870 to 180, and now we have generally 250 guns ready for service.

In 1859 the threatening tone of some French colonels, in an address to the Emperor Louis Napoleon concerning the Orsini-conspiracy organized by refugees in this country, brought about one of the most remarkable and important events in our modern history, the birth of our force called Volunteers. Tennyson's spirited verses, "Form! riflemen, form!", fell upon a nation roused to fury by foreign bullies as an imperative call to arms. Certain patriotic citizens had, before this time, been stirred to action by the defenceless state of the country. In 1852, the "Exeter and South Devon Rifles", the first body of volunteers whose services were accepted by the Queen, arose mainly through the spirited exertions of Dr. J. C. Bucknill, F.R.S., a gentleman who, on this account, fitly received, in May, 1894, the honour of knighthood, on the occasion of Her Majesty's seventy-fifth birthday. Mr. Hans

Busk, born in the year of Waterloo, had endeavoured, while he was yet an undergraduate at Trinity College, Cambridge, to move the government in favour of founding rifle clubs throughout the land as a defence against invasion. The easy-going Lord Melbourne, the Premier of the day, threw cold water on his zeal, but Busk succeeded in starting a rifle club at Cambridge, and advocated his plan in speech and print. In 1858, he lent aid in reviving the "Victoria Rifles", and of course warmly welcomed and supported the national movement. The Prince Consort, ever foremost in good works, had always shared the views of Wellington, Burgoyne, and Palmerston as to the lack of safeguards against foreign attack, and it was he who drafted the "Instructions to Lords-Lieutenant" issued in May, 1859, by the Secretary for War, then General Peel, a brother of Sir Robert. These "Instructions" were, in fact, the regulations upon which the Volunteer force was raised and organized. A few weeks later, Lord Derby's ministry fell from power, but the second advent to office of Lord Palmerston as prime minister was all in favour of the new movement. Among the chief supporters of the cause, rendering active personal aid, were Colonel M'Murdo, the first Inspector-General, Lord Ranelagh, Lord Elcho (afterwards Earl of Wemyss), and Colonel Loyd-Lindsay, V.C., a Crimean hero, afterwards Lord Wantage. Since that time, the country has been, at any rate, free from panics as to possible invasion. Without any promise of pay, or reward, or even of any pecuniary help towards needful expense, in a few months' time above 100,000 riflemen and artillerymen were enrolled, and in 1860 the Queen reviewed, in Hyde Park, London, and in Queen's Park, Edinburgh, two bodies of volunteers amounting in all to over 40,000 men, acquainted with the elements of military drill, and able to manœuvre with some precision. Against much difficulty and discouragement—the ridicule of the foolish and unpatriotic, the mingled contempt and jealousy of many officers of the "regulars", and the lack of pecuniary support from the government—the Volunteers grew and grew in efficiency until they forced their way to full official acceptance as a branch of the organized forces of the land, and, being formally incorporated with the territorial regiments, and furnished with equipments from the public funds, they now regularly camp out in battalions or brigades, and are taught the work of campaigning along with the militia and the line. In 1881, the Queen again

reviewed large armies of the force in Windsor Park and on the beautifully-placed ground behind Holyrood at the Scottish capital. In the same year, some of the honours of the Order of the Bath were placed within reach of Volunteer officers, and a special decoration has been recently awarded for those who have served for twenty years. The wisdom of the military authorities has been shown in requiring from all volunteers that a certain standard of efficiency in drill and rifle-shooting should be attained, in order to entitle them to the payment of a grant towards their expenses. "Volunteering" has thus become a matter of serious business instead of a mere parade in uniform or an Eastertide or summer picnic, and its latest development includes the use of ordinary field-artillery and of machine-guns, military signalling, cycling, stretcher-bearing as for sick and wounded men, submarine mining, engineering in fortress and railway-transport work, and regular study of tactics by officers. Intimately connected with this great movement was the establishment of the National Artillery and the National Rifle Associations. The former, founded in 1865, trains the volunteer gunners for the manning of our coast and field-batteries, in which they would be able to render important service along with officers and men of the Royal Artillery. The latter was established in 1859, and extraordinary skill in the use of the rifle at ranges from 200 up to 1000 yards has been developed through the annual competitions held at Wimbledon during a fortnight in July, from 1860 till 1889, when the scene of operations was transferred to Bisley, in the west of Surrey. The volunteer movement has been of great social service in improving the physical appearance, strength, and health of large numbers of the people. The value of the mental and bodily training and discipline acquired by the $1\frac{1}{2}$ millions of men that have passed through the ranks of this citizen-force can hardly be over-estimated, and, as regards the main object for which the men were enrolled, it is known that the very highest military authority of these modern days, the illustrious German strategist and tactician, Count von Moltke, regarded the British volunteers as an element of our military strength that should make intending invaders seriously reflect upon the magnitude of the task which they were undertaking. "Many ways," he said, "he knew of getting an army into Great Britain, but none of withdrawing them in case of need." In plain words, he believed that no skill or courage

could save the invaders from utter destruction at the hands of a million of enraged Britons who, however lacking in experience of actual warfare, could load and fire rifles with fair accuracy of aim, and, lining the hedges of a country such as ours, make an invader pay dearly for every yard of progress made. Our present position as to strength in this great auxiliary force for home-service is that, at the close of 1897, there were over 264,000 enrolled men, of whom nearly 233,000 were returned as "efficients" in drill and shooting. There were over 20,000 officers and sergeants earning the extra grant for proficiency, and about 1400 officers "passed in artillery and tactics". The artillery numbered nearly 40,000 men as "efficients", supplied with 90 batteries of horsed-guns of position, in all 360 guns—40-pounder "Armstrongs", 20-pounder breech-loaders, and 16-pounder muzzle-loaders. There were above 11,000 "efficient" "Fortress and Railway" engineers, 1250 "Submarine Miners", nearly 1400 "efficient" members of the Medical Staff Corps, about 2200 military cyclists, and, as the backbone of our strength against possible invaders, above 165,000 infantry ready to take the field and "blaze away" at a moment's notice.

Returning to the "Regulars", we note first the means now adopted to give efficiency to both officers and men. The British officer of fifty years ago, good at sport and at regimental drill in the barrack-yard, knowing nothing of and caring nothing for the science of his profession in strategy and tactics, has vanished for ever. The "second lieutenant" can obtain no commission save by passing through one of the military schools, or by stringent competitive examination after two years' service in the militia, or by the excellent and now much-extended usage of promotion from the ranks for good conduct and efficient service. It is owing to this last practice that our army now contains many hundreds of privates who are gentlemen by birth and education, but have failed to obtain commissions through examination, and have enlisted in the hope of rising to be sergeant-majors at least, with the chance of a commission as lieutenant or as quartermaster. The Royal Military Academy at Woolwich, established in 1741, admits pupils between 17 and 20 years of age, after a severe competitive examination, and, by an arduous training of $2\frac{1}{2}$ or 3 years, prepares them for the Royal Artillery and Engineers. The like-named institution at Sandhurst, in the south-east of Berkshire, founded in 1858, does

similar work in regard to the cavalry and infantry. Officers and men already in the service receive technical instruction in various branches of the military art in the Staff College at Camberley, near Sandhurst; at the School of Gunnery at Shoeburyness, on the south-east coast of Essex; at the School of Military Engineering at Chatham; the School of Musketry at Hythe, on the south coast of Kent; the Schools of Signalling and of Range-finding at Aldershot, and at other establishments for the use of the auxiliary forces. At Hounslow there is a "Royal Military School of Music", and other requirements are met by the Army Medical School at Netley, near Southampton, and a Veterinary School and a Gymnastic School at Aldershot. The establishment of camps of exercise and instruction marked a new era in the history of the British army. The first of these, a temporary institution, arose in 1853 at Chobham, in the north-west of Surrey, where a considerable force of all arms was placed under canvas for two months, and was trained (as it proved) for the Russian war of the following year by the endurance, in a bad summer, of much rainy and tempestuous weather. There is no need to dwell upon the work which the daily papers bring to our notice as performed by all branches of the army at Aldershot, where the government, in 1855, purchased about three square miles of moorland, called Aldershot Heath, and formed a permanent military post in a singularly healthy and suitable region for the purpose in hand. From 10,000 to 15,000 troops of all arms are usually in camp, and the militia and volunteers there receive instruction in mimic warfare on the most practical system possible. A town of 20,000 people has risen near the camp. On the same model we have smaller camps at the Curragh of Kildare, in the east of Ireland; at Shorncliff, near Folkestone; and at Colchester.

In concluding this subject of military progress, we may fairly assert that the British soldier, in his treatment, his character, and his efficiency for service, apart from his native inalienable courage, is a very different being from his predecessor of the Peninsular War. He has advanced with the times. He has been well cared for, morally and spiritually, by many good men and women. Thousands of men in the ranks, at home and abroad, are total abstainers from intoxicating liquors. He is treated as a man, and not as a felon. He can now, as Lord Wolseley, one of his ablest commanders, puts it, "look the soldiers of all other nations in the

face, for he can be flogged no longer". The soldier is better educated, more intelligent, better disciplined, far better behaved, more contented, and therefore far more efficient for all the purposes for which he is maintained. His work is sufficiently hard, and his life in camp and under discipline is somewhat monotonous and, by necessity, devoid of a civilian's freedom, but he is now supplied with a good and comfortable canteen, with fives-courts and skittle-alleys; he has games of football and cricket along with his officers; he has a recreation-room for smoking and for reading a good variety of books and papers, with tea and coffee and bread and butter for his refreshment. From his daily pay of 1s., the infantry-man of good conduct may save from 2s. to 2s. 6d. per week as pocket-money, and in substantial comfort he is far better off than a labourer or ordinary mechanic. At the end of two years' service from the time of enlistment, the soldier may begin to draw good-conduct pay, and he thus earns, for every year of service, £3 a year besides his ordinary pay. The sum of £21 is handed to him on his leaving the colours for the army reserve, and he has thus a start in civil life, with 6d. per day as pay in the First-class Army Reserve until the expiration of twelve years from the date of enlistment. If he does not pass into the reserve, but completes, at his own option, twelve years with the colours, he then receives on discharge the sum of £36. If he completes his twenty-one years of service, he is paid, on leaving, £36 and has a life-pension of 1s. per day. If he has become a sergeant, he receives £72, and a pension for life of from 2s. 3d. to 2s. 9d. per day. If he is a sergeant-major, or any other grade of warrant-officer, his life-pension is 4s. 6d. a day.

The close of the Crimean War, in 1856, was signalized by the institution of the highly valued decoration known as the "Victoria Cross", conferred on British officers and men, in army, navy, and royal marines, for any very distinguished act of courage or patriotic devotion performed in the presence of the enemy. The distinction is also open to volunteers against an enemy, though they may not belong to any branch of the service. This badge of honour, in the course of nearly forty years, has been awarded to between 400 and 500 officers and men, and consists of a Maltese cross of bronze, with a royal crown in the centre, surmounted by a lion, and with the words "For Valour" indented on a scroll below the crown. The cross is attached to a clasp, adorned with two straight branches of

bay, by the letter "V", and the clasp has on it a blue ribbon for the navy and a scarlet one for the army. An additional act worthy of the "Cross" is marked by a bar on the ribbon. The honour carries with it, for non-commissioned officers and men, a pension of £10 a year, with £5 more for each bar added. It remains only to state that our military establishment for 1897 was composed, in addition to the Volunteers above given, of about 145,000 effectives of the "regulars", of the highly important 78,000 effectives of the "Army Reserve", about 122,000 militia, embodied and in reserve, 10,000 yeomanry, and of about 78,000 regular forces in India (British troops). The "regulars" in the British Isles have nearly 300 field-guns, while India employs about 320. To meet invasion, we could at once put into the field, in Great Britain, including the Volunteers, about 440,000 riflemen, 600 guns, and a few thousands of efficient cavalry, backed, within a week, by a million of men who have served as volunteers.

In dealing very briefly with the British navy, as at present constituted, we need do no more than allude to the change from sails to steam, from "wooden walls" to "armour-clads", from broadsides composed of many 32-pounder and lighter guns to huge cannon in turrets and otherwise carried, varying in weight from 18 to 111 tons, and firing shot and shell each from 200 to 1800 pounds in weight. The improvements made in steam-machinery for sea-going ships have been described in connection with the mercantile marine, and we simply state that in 1808 our largest man-of-war afloat was a vessel of 2600 tons, contrasted with iron-clads, now in commission, of 14,000 tons; that in 1822 our first steamship, the *Comet*, was launched from Woolwich Dockyard, and that in 1861 our first iron-clad, the *Warrior*, designed by Mr. Scott Russell, was launched from the yard of the Thames Ship-building Company, as a reply to the French vessel *La Gloire*, which was afloat early in 1860. The *Warrior*, armour-plated for only two-thirds of her length, had iron plates $4\frac{1}{2}$ inches thick. The *Majestic*, and ten other vessels of her class, launched in 1895-6-7, have specially hardened steel armour of vast resisting power. For defence against boarding, quick-firing guns and machine-guns in the tops are the modern device; for attack on hostile vessels, the projecting ram and torpedoes passing under water to strike the

enemy's hull, are at once a revival of a method used by the ancient Greek and Roman galleys propelled by oars, and an innovation of modern science employing compressed air, electricity, and other motive powers. The use of this weapon has caused the introduction of torpedo-boats, for carrying and discharging the submarine missiles, and of torpedo-boat "catchers" or "destroyers", provided with torpedoes and machine-guns, running now at the rate of 30 knots, and good vessels in a sea-way. The heavy gun now adopted for our navy as most effective is the 46-ton wire gun, throwing a projectile of 850 lbs. weight, capable of piercing 30 inches of armour. Some idea of the expense of modern navies may be formed from the fact that this 46-ton gun has "a life" of only about 150 rounds, after firing which she would become worn out. The modern first-class iron-clad, with her many auxiliary engines, and expensive fittings of every description, costs about one million sterling—a sum which, in Nelson's day, would have given him a fleet of thirteen seventy-fours, the armament with which, with the addition of one 50-gun ship, he won the "conquering" victory of the Nile. For the protection of commerce, we have the ships called "cruisers", some having 10-inch steel armour at the water-line for two-thirds of the length, and an armoured deck; others having a turtle-backed deck throughout the length of the vessel, with armour from 2 to 6 inches in thickness at different points. The newest and most efficient cruisers afloat, the *Powerful* and the *Terrible*, were launched in 1895 and put in commission during 1897. They are strongly armoured, and have a speed of 22 knots, or nearly 25 statute miles per hour. Their armament is exceedingly strong and is at all points carefully protected from the enemies' gun-fire. Both vessels have a high freeboard, while the vital parts are protected by a steel deck fully 4 inches thick. Their coal-bunker capacity is 3,000 tons. The nature of our empire is manifested in the names of the squadrons maintained in various quarters of the world for the defence of our possessions. Besides the Channel Squadron, we have the "Mediterranean and Red Sea", the "North America and West Indies", the "East Indies", the "China", the "Cape of Good Hope and West Africa", the "Pacific", the "Australia", and the "South-east coast of America" fleets, besides a "Training Squadron", and 17 ships engaged on

H.M.S. *MARS*, *TERRIBLE*, AND *DRAGON* ON A CRUISE.

These three vessels are representative of three well-marked classes in the British navy. (1) The *Mars* is one of nine battle-ships, which are all of one type. The length of this colossal ship is 390 feet; the extreme beam 78 feet, the main draught 28 feet. With moderate forced draught it attains a mean speed of $17\frac{1}{4}$ knots. Her armament includes four 12-inch guns mounted in strongly armoured barbettes, twelve 6-inch quick-firing guns, sixteen 12-pounders, twelve 3-pounders, and five torpedo discharges. Thus the *Mars* is one of the most powerful battle-ships afloat. (2) The *Terrible* is a first-class cruiser of 14,000 tons. Her armament is very strong and carefully protected. The vital parts are placed beneath a 4-inch steel deck, and her coal-bunkers hold 3000 tons. Her speed in smooth water is over 20 knots. (3) The *Dragon* is a torpedo-boat destroyer of the newest class, and is chiefly remarkable for its speed, which is about 30 knots. It is also armed with a number of quick-firing guns.



FRED. T. JANE.

H.M.S. *MARS*, *TERRIBLE*, AND *DRAGON* CRUISING IN THE
ENGLISH CHANNEL.

“particular service” and “surveying service”. As it was estimated, in a Royal Commission’s Report of 1881-2, that the value of British merchant ships and their annual freights then amounted to 900 millions sterling, and that we always had afloat, mostly on distant voyages, property to the value of nearly 150 millions, measures have been taken to provide fortified coaling-stations along the chief routes of our commerce, those of trade with the Mediterranean, the East, and Australia, both by the Suez Canal and round the Cape of Good Hope. The points for this purpose, by the Canal route, are Gibraltar, Malta, Aden, Bombay, Kurrachee, Colombo (south-west coast of Ceylon), Singapore, and Hong-Kong. For the Cape route, we have Sierra Leone, Simon’s Bay, and Table Bay (both at the Cape), and Mauritius (Port Louis). In the West Indies, Jamaica and St. Lucia are the coaling-places for our men-of-war.

The navy now is manned wholly by volunteers, instead of by the method of impressment or by jail-birds, and the service is recruited by the entry of boys on training-ships, with an engagement to serve for twelve years from the age of eighteen. The treatment of the sailor has kept pace in improvement with that of the soldier. Good-conduct badges, pensions at homes of their own instead of a retreat, with irksome discipline, at the noble Greenwich Hospital, good food on board, careful nursing in sickness, and other advantages, have greatly attracted and benefited this class of our defenders. Encouragement to sobriety is given by the supply of cocoa, coffee, or a money-payment in lieu of the old rum-ration, and our fleet, like our army, contains thousands of men who, to their great physical and moral advantage, are total abstainers from alcoholic drinks. Since 1859, a naval reserve has been formed from the mercantile marine, from discharged sailors of the royal navy, and other sources, including the coast-guard and seamen-pensioners, the whole force now numbering over 30,000 men. Gunnery-schools, torpedo-schools, naval manœuvres with the flying squadron and the Channel fleet, and the Royal Naval College at Greenwich, for special scientific instruction, are among our means of preparing officers and men for the work of modern naval warfare. We finish our statements concerning the British navy with some figures of comparison which are at this moment justly influencing the naval policy of an empire which has to defend interests at home and

abroad of a value so unprecedented and so incalculable. The strength of three navies in 1897 is here given.

Of first-class iron-clads, France had 18, Russia 9; total 27. Of second and third class iron-clads (all sea-going ships) France had 17, and Russia 11; total, 28: total number of iron-clads in French and Russian navies, 55.

Of cruisers (first, second, and third classes) France had 19, Russia, 8; total, 27.

Of torpedo-craft, France had 255, Russia, 212; total, 467.

Great Britain had, of first-class iron-clads, 29; of second and third classes, 28; total British iron-clads, 57. Of cruisers, our navy possessed 81. Of torpedo-craft, we had 292. In regard to the cruisers we may note that some of our great steam-ship companies are prepared, under contract with the government, to greatly reinforce the navy by fitting out, within a few days, many powerful and very swift vessels as men-of-war. As to the iron-clads, it is for us to see to it that we always have a force at least equal to that of the two most powerful navies afloat. In torpedo-craft, so far as mere numbers go, we still fall far short of France and Russia combined.

CHAPTER XXVII.

CONCLUSION.

Comparative statistics of population and trade—The National Debt—Our mercantile shipping—Improved position of the working-classes—Our political system—The spirit of Freedom the mainspring of Britain's greatness among the nations—Improved social feeling.

A few figures on material progress may first be given. In 1801, the population of England and Wales was 8,892,000; of Scotland, 1,608,000. In 1891, England and Wales had just over 29 millions; Scotland a little more than 4 millions. In the same period, Ireland had declined from 5,395,000 (after increasing to 8,175,000 in 1841) to 4,704,000. During the century, the population of the British Isles has therefore grown from a little under 16 millions to about 40 millions, allowing for the increase in Great Britain during the five years that have passed since the census of April, 1891. As to foreign trade, we find that in 1802 (which we

select as a year of peace, the lull in the great conflict) our imports nearly approached 30 millions in value, and our exports exceeded 38 millions. In 1893, when trade was much depressed, our total imports exceeded in value 405 millions, and our exports of British produce were just 218½ millions, with nearly 59 millions value of exports in foreign and colonial produce, a fact which shows the extent to which the British ports serve as entrepôts for goods from all parts of the world. The total British trade therefore, in a bad year, was approaching 700 millions sterling in value; in 1896, it was nearly 738 millions. The National Debt, since 1815, has decreased (in spite of 39 millions increase due to the Crimean war) from 861 millions to 629 millions, the annual charge for interest having fallen, since 1815, from £32,645,000 to £25,000,000. For a nation in her decline, "as certain people do vainly talk", these figures have a strange appearance. As regards shipping, some statistics have already been given, but we may observe that, apart from the tonnage (of which, in the home and colonial empire, we had recently, taking in all the vessels in the world, some 9 millions of tons out of 22 millions) we possess, in our mercantile marine, owing to our predominance in steamships (greatly exceeding in tonnage those under all other flags combined), an effective carrying-power nearly equal to that of all the rest of the world together, or in the ratio of 22 millions of tons to 24½ millions. This arises from the fact that a steamer makes three ocean-voyages, or six short voyages, in the time that a sailing-vessel takes to complete one. Here again, if the British Empire has really seen her best days, the figures are, at least, remarkable. In 1840, our effective carrying-power was about 3,900,000 tons against 6,260,000 tons under all other flags together.

There is no need to enforce the conclusion to be drawn from almost every chapter of this section of the present work, that the nineteenth century has witnessed, in the British Isles, improvements not merely vast and sweeping in degree, but wholly new in kind. To refer to the details again would be to interfere with the work belonging to the thoughtful reader. "The greatest happiness of the greatest number", a phrase coined by Dr. Priestley, and made the motto of Jeremy Bentham, was the noble aspiration of the Utilitarian philosophy, and that ideal has been, to a large extent, realized in the changed position of the working-classes.

Their food, their dress, their homes, their amusements, their demeanour, their contentment, so powerful for our political well-being, are all cogent proofs of great and beneficial change. Take the period since the passing of the first Reform Act in 1832, and find, if you can, another sixty years of modern history which has done so much, not for the wealthy and the highly-cultured, who must always be the few, but for the great body of the people, the makers of wealth, those on whose loyal spirit the maintenance of public peace, of law and order, must always depend. The anarchist, to the average British working-man, is not merely a hateful, but an altogether ridiculous and contemptible being. And why is this? It is because the grandest of all factors in human affairs, the spirit of freedom, has been at work in our midst. It is because the people, whom none others, whom nothing else, could save, have been permitted to save themselves through political, economical, social, moral, and intellectual emancipation. Nor is there any talk now, as in past days in the British Isles, of "the madnesses of an unbridled democracy", or of "the tyranny of numbers". The British voters, under a democratic system, have given ample proof of their desire to conserve existing institutions, and to seek improvement through cautious and steady reform rather than in destructive and radical change. In a country which possesses hereditary monarchy, whereby the sovereign has the power to call into public and private council the highest intellect of the land; which has a second chamber not wholly hereditary, but recruited from below by the most successful and capable personages; and a free press, conducted in all its most powerful organs by men of character and of liberal education, there is always provided a good measure of representation for the more educated and more experienced minority in the body politic, with safeguards against the evils which the timid who distrusted their humbler fellow-citizens anticipated from any enlargement of the franchise. It has been abundantly shown that, in such a country as this, each enlargement of the suffrage is a fresh source, not of danger, but of safety; binding the masses to the established order of things by the loyalty which springs from content, and from the sense of being appreciated and trusted, of being dealt with not as children, but as men. "The love of liberty for all, without distinction of class, creed, or country, and the resolute preference of the interests of the whole to any

interest, be it what it may, of a narrower scope", these have been the broad and noble principles that have won, and will yet win, for British citizens, triumphs of wholesome legislation which, in removing hindrances to the free play of popular energies, enable men and women to do their best work, and to elevate themselves in every act of self-help, with due regard to the rights and claims of their fellow-men. How wholesome, also, is the change which the nineteenth century has seen as regards the hateful severance between the classes that became most prominent in the years succeeding the first French Revolution. That great event, or series of events, terrified too many of the upper, and excited too many of the lower, sections of society. The system of repression which was adopted, with the evil habit of talking and acting as if "the Government" and "the people" were necessarily in antagonism, caused ever-increasing mischief. The old feudal ties between class and class, employer and employed, had been severed. Large masses of working people had gathered in the manufacturing districts in savage independence. The agricultural labourers had been debased into a horrible condition by the abuses of the old Poor Law. The lawless doings of Luddites and rick-burners made owners of property, in too many cases, come to regard "the masses" as their natural enemies. The influence of Christianity; the spread of liberal principles, founded on common humanity and justice; the efforts of enlightened statesmen, philanthropists, ministers of religion; and other men devoted to doing good as the duty specially required of them by creed or by station; the awakening, among prosperous people, of a new sympathy for suffering, have at last succeeded, in a large measure, in abolishing class prejudices and class grudges. We have reviewed, in previous pages of this work, the marvellous progress of scientific discovery. We have seen the careful and reverent study of Creation leading to fuller knowledge of "the harmonious symphony which we call the Universe". We have beheld "the drooping flower of knowledge changed to fruit of wisdom", for it is a distinction of scientific knowledge that its flower sets for fruit. The philosopher, content to know, has seen the knowledge won by him taken up for the benefit of the world at large. Science has thus changed the whole external life of civilized mankind. In nearly every field of human activity the traditional way of doing things has been abandoned. We act on our knowledge of the laws of Nature, and

she has become our willing slave, so that the multitude are now on the side of the science which has had results so striking and so beneficent, and has afforded the confident expectation of still greater changes, rendered easier by the universal appreciation of scientific methods. Electric force, we may be quite sure, has not yet said her last word, and it is possible that mankind may yet, in the literal, physical sense "mount with wings as eagles", and float upon the air as upon the waves. The finest social feature of our country and our age is, however, seen in the recognition, on all sides, of duty to others; in the practical sympathy displayed, in every time of need, by members of every class, from those who, in kinship, surround the illustrious lady on the throne, to the very humblest toilers of the land. A new spirit is at work, not only in politics, but in religion, in social action, in the whole of life. Whole sections of society have begun to feel that they are, and ought to be, their brother's keepers, and the philanthropic side of Christianity, as distinguished from the orthodoxy of formulas and creeds, was never so powerfully active in our midst as in these closing years of the nineteenth century. Great and gratifying beyond all the marvels of science, to the mind and the heart of a patriot, should be the visible increase of that moral force which can not only sweeten and preserve a nation, but, with the resources of such an empire as ours, rightly used, can do much to regenerate the world in which, far beyond the confines of Europe, we wield so wide and splendid a sway.

BOOK V.

BRITISH POSSESSIONS IN EUROPE, ASIA, AND AFRICA IN THE NINETEENTH CENTURY.

CHAPTER I.

EUROPEAN POSSESSIONS.

Isle of Man—The Channel Islands—Gibraltar—Malta.

AMONG the foreign territories of Great Britain may be fairly reckoned the Isle of Man and the Channel Islands, governed as they are by systems of law diverse from those which control the rest of her dominions in the north-west of Europe. The *Isle of Man*, peopled from a prehistoric time by Celts who spoke a dialect of the Goidelic, Erse, or Gaelic branch, as distinguished from the Brythonic, or Welsh and Breton group, has no trustworthy records prior to the sixth century of the Christian era, when a line of Welsh kings began to rule. Near the close of the ninth century, Norwegian conquest by King Harald Haarfager brought Scandinavian rulers into power for more than three centuries and a half. The utter defeat of Haco, king of Norway, at Largs, on the eastern coast of the Firth of Clyde, in 1263, caused his son-in-law and successor, Magnus, to cede Man, with the Hebrides, in 1266, to Alexander III. of Scotland. On his death, twenty years later, the Manx people formally sought and obtained the protecting control of Edward the First of England, and the island henceforth, for more than a century, was given in possession to successive courtiers. In 1406, Henry the Fourth made a feudal grant of Man to Sir John Stanley, an ancestor of the Earls of Derby. By his heirs, as "kings" of Man, the territory was held until 1651, when a Parliamentary force took possession. At the Restoration, nine years later, the Isle of Man reverted to the Derby family. In 1735 the second Duke of Athol, as a descendant of the seventh Earl of Derby, came into possession on the death of the tenth earl without issue. About thirty years elapsed, during which the

island became injurious to the British revenue as the resort of smugglers on an extensive scale, and in 1764 it was purchased by the Crown for £70,000 and an annuity of £2000, the Dukes of Athol retaining certain manorial rights, church patronage, and other privileges. In 1829 these interests were ceded to the Crown for another large payment, and henceforth, with a peculiar ecclesiastical and civil constitution, the Isle of Man became fully subject to British sovereigns. The Manx Church has its own bishop, convocation, and canon-law, the prelate's title of *Sodor and Man* being, in the former part, a corruption of the Scandinavian word *Sudreyjar* or *Sudoreys*, i.e. *Southern Isles*, referring to the southern Hebrides, formerly included in the see. There are special laws, law-officers, and courts. The governor, appointed by the Crown, presides in the chancery and other superior courts, with the two *deemsters*, or judges, officials of great antiquity, as his assessors. The *deemsters* have their own summary courts, with an extensive civil and criminal jurisdiction in minor cases. The legislature, or *Tynwald Court* (compare the Icelandic place of meeting, *Thingvellir* or *Tingvalla*) is composed of two chambers, one consisting of the governor and a council of eight members, including the bishop, the two *deemsters*, and the attorney-general; the other being a representative body of twenty-four members, styled the House of Keys. Formerly self-elected, this Manx House of Commons has, since 1866, been a septennial parliament of popular choice. In 1880 an advance towards democracy was made in an Act granting household suffrage in the towns, a four-pound owner and six-pound tenant franchise for country districts, and a women's suffrage. The royal assent is needed for all measures passed by Tynwald, and a statute becomes operative only after solemn promulgation at Tynwald Mount, an ancient artificial circular hill arranged in four platforms, near the centre of the island. Since the middle of the nineteenth century, taxation in the shape of local imposts and customs-revenue has been payable to the insular exchequer, which, after making a contribution of £10,000 a year to the imperial revenue, expends a large surplus on public works that have greatly improved the harbours and roads, and furnished new attractions to summer visitors. The chief industries, besides arable and pastoral farming, are the fisheries of herring and cod, employing about 700 boats and 4000 men and boys, and the very lucra-

tive mining of lead and zinc, with some copper, iron, and a fair amount of silver. There is no need to describe the scenery or the towns of a region so well known either from personal observation or from guide-books. Of the whole area of 145,000 acres nearly two-thirds are tilled, and a large export of wheat and of fat cattle is made to the English markets. The climate is mild, with a very limited range of temperature, and the land is well watered by the springs and streams of the hilly districts. The Manx language survives in a limited amount of speech, in translations of the Prayer-book and Bible issued in the latter half of the eighteenth century, and in a dictionary. There is no literature apart from some carols and songs. The population, in 1891, exceeded 55,000; the four chief towns, Douglas, Castletown, Ramsey, and Peel, are united by light railways, and large swift steamers run from Liverpool, Barrow, and the Clyde to Douglas.

The *Channel Islands* are the sole relic of the old Norman possessions of the British crown. During the sixth century of the Christian era the people, probably of Celtiberian race, were converted by missionaries from Brittany and Ireland, two of whose names, St. Helerius, patron saint of Jersey, and St. Sampson, of Guernsey, remain in the towns of St. Helier's and St. Sampson. The tenth century saw the conquest of the group by the Northmen, and the introduction, in a modified degree, of the feudal system. There was no military service required from tenants, and the local militia had a parochial basis until modern times. When King John was deprived of Normandy by Philip Augustus, certain seigneurs who kept in his allegiance settled in the islands, and in Jersey and Guernsey local governments were formed in bodies called "States", composed of the rectors and the constables or mayors of parishes (twelve in Jersey, ten in Guernsey), the *jurats*, or judges of the royal court, with a bailiff, or lieutenant-governor, appointed by the sovereign. There are now, in addition to these *ex-officio* members, 14 elected deputies in Jersey, and the office of governor has long become distinct from that of bailiff. The language used in debate and in judicial affairs is modern French, while the popular tongue is a dialect of the ancient *Langue d'oïl*, in which Wace, a native of Jersey, wrote in the twelfth century a *Roman de Rou*, recording the deeds of William the Conqueror. The attachment of the conservative element of the population to the old usage

was strikingly shown in February, 1893, when the States of Jersey, after a long debate, rejected, by 27 to 6 votes, a bill for permitting the optional use of English in the assembly. The English language, long taught to all the children in the schools, has of late years made such advances, especially among townspeople, that many deputies are unable to express themselves correctly in French. The country parishes, however, are resolutely opposed to the introduction of English in the States, and their influence, for the first time in the history of Jersey, caused the affirmation of the principle that French is the official language. There are two lieutenant-governors in the islands, one for Jersey, another for Guernsey, Alderney, and Sark, each appointed for five years, with the command of the troops and the chief executive authority. The bailiff presides both in the legislative assembly and the highest court, where the local law is based on that of olden days known as the *Coutumier de Normandie*. Enactments of the States in the form of bye-laws called *ordonnances* are valid for three years without royal assent; measures of organic change require the sanction of the Crown. The constitution of Guernsey has no democratic element like that of Jersey, and almost all power lies in the royal court. The Reformation doctrines, aided by the entry of exiled Huguenots, took a firm hold in the Channel Islands, assuming a strictly Puritan and Presbyterian form. In 1568 Queen Elizabeth severed these firmly Protestant subjects of her rule from the spiritual sway of the Bishop of Coutances in Normandy, and attached them, as they remain, to the diocese of Winchester. The great Tudor queen's memory abides in the old fortress at St. Helier's called Elizabeth Castle, built in her reign on the ruins of a twelfth-century abbey, and in Elizabeth College, at St. Peter Port, the capital of Guernsey. This large public grammar-school was founded in 1563. Alderney, strongly fortified and furnished with the incomplete granite breakwater elsewhere described, is chiefly known to fame by its beautiful cows. The civil power lies in a judge, nominated by the Crown, and six jurats chosen for life by the people.

Few matters of importance present themselves in reviewing the history of the Channel Isles. During the French wars of our Plantagenet days, the enemy were, for brief periods, in possession of the two larger islands, but since the accession of Henry the

Seventh British sway has been unbroken. During the great Civil War of Stuart times, Guernsey was mainly republican and Jersey chiefly royalist. In 1646 the Prince of Wales, afterwards Charles the Second, found a refuge at the castle of Mont Orgueil, five miles from St. Helier's, but soon retired to France. In 1651 the group fell into the full possession of the Parliamentary forces, but neither then nor at any other time did the people suffer serious infringement of their old immunities and rights, a fact to which the existing loyalty is largely due. Under William the Third, the privilege of neutrality, in wars between Great Britain and France, was withdrawn, but the bold seamen of the islands found an ample recompense in preying on the enemy's commerce as privateers. In the days of high tariffs for French manufactures, Guernsey was a great centre of smuggling operations directed to our southern coast, and the stormy waters around the rocky shores of the Channel Islands were a favourite cruising-ground of British revenue-craft. In 1781, a French adventurer landed with an armed force in Jersey, and would have gained possession of St. Helier's but for the singular promptitude, gallantry, and skill of Major Pierson who, attacking the foe in the market-place, lost his life in the brilliant and successful encounter immortalized in Copley's admirable picture in the National Gallery. The hero of this episode had not completed his twenty-fourth year. The present military defence of the islands consists in some Royal Artillery and a local force of the same arm, and in two battalions of infantry of the line, with six regiments of the Royal Jersey and Guernsey Militia, bodies recruited by compulsory service which keeps about one-tenth of the population either in the ranks or the reserve. The chief form of land-tenure is that of small proprietors who, labouring with their own hands, and gathering from the storm-beaten shores vast quantities of sea-weed as manure, are remarkable for industry and thrift, and win from a light, deep, and fertile soil valuable crops of early potatoes for the London market, with large supplies of fruit and flowers. Jersey and Guernsey, as well as Alderney, have their special breeds of cattle, a pure stock fetching high prices for foreign reproduction. The grand rock-scenery of the coasts, and the verdant beauty of the foliage, the pasture, and the tillage, with the equable, mild, and healthy climate, are very attractive to tourists, who are provided with excellent daily steamers from Southampton,

Weymouth, and other ports. The flora of the islands, indigenous and exotic, presents great variety, interest, and beauty. The camellia, the geranium, the arbutus, the magnolia, the myrtle, and the fuchsia, flourish in a style unknown to the rest of northern or western Europe. The little island of Sark is a gem of beauty for the rock-scenery of its shores, and its waters and caves are more richly supplied with rare and lovely sea-anemones, and with various species of zoophytes, than any other region in this part of the world. The Channel Islands, with a total area of 75 square miles, contained in 1891 a population of 92,000, with a very small increase in the space of forty years, a fact due chiefly to emigration.

Of *Gibraltar*, the first stronghold guarding our line of communication with India by way of the Suez Canal, the history up to 1801 has been already given. For eighteen years, from 1802 until his death in 1820, the post of Governor was held by the Duke of Kent, father of Queen Victoria, with great advantage to the cause of discipline, sobriety, and good order. The drink-trade was firmly controlled, and the death-rate among the troops was reduced by one-half. Outbreaks of fever, with a terrible mortality, occurred in 1804, 1810, and 1828, and beyond these events there is little to record save the constant work done in improving the fortifications; the erection, in 1841, of the lighthouse on Europa Point; and the construction, in 1846, of a breakwater in front of the sea-wall extending along the western base of the rock from the new to the old mole. This military and naval post, a dependency technically styled a "Crown colony", and popularly known as 'The Rock' or 'Gib.', lies on the southern and narrower half of a peninsula about six miles in length, and from a quarter of a mile to two miles in width. The British territory, nearly 2 square miles in area, at the very centre of the southern coast of Spain, is on the east side of the Bay of Gibraltar, running due north for eight miles, and from four to five miles across. The Rock itself is an isolated mountain, composed mainly of hard, smooth, fine-grained gray limestone, about $2\frac{1}{2}$ miles long, and half a mile in average breadth, with an extreme height of 1440 feet. The northern face rises abruptly from the sandy plain called the North Front, on which, going northwards, lie the cemetery, cricket-ground, and race-course, beyond which come the British Lines, and then the uninhabited Neutral Ground, a quarter of a mile in width, ended, on the north,

by the Spanish Lines. The eastern face of Gibraltar Rock is an inaccessible precipice springing upwards from the blue Mediterranean waters, with the Signal Station, 1255 feet above sea-level, at about the middle of its southward knife-edged course, which ends, at Europa Point, in a perpendicular cliff of 100 feet in height at the water's edge. This natural rampart, after the northward turn, runs for a mile along the western face until level ground, between the Bay and the Rock, begins near the New Mole, and on this side, at the foot of the Rock, which here has a steep slope seawards, lie the town, the military and naval establishments, and the fortifications. There is one spacious street about half a mile in length, lined with shops, and well lighted and paved. The greater part of the civilians, 19,100 in number by the census of April, 1891, reside in North Town, with narrow streets and many mean-looking houses. The pretty public Alameda Gardens lie between this and South Town, which has only a small population of civilians, and is mainly occupied by barracks, hospitals, and other buildings for the use of the garrison and for naval service.

Gibraltar, in spite of a density of population scarcely surpassed in any town in the world, at the rate of about 60,000 to the square mile, is generally healthy, with fairly good drainage and supply of water. The foreign inhabitants are largely descended from old Genoese settlers, and include a motley mixture of Spaniards, Italians, Jews, and Moors. The heat in summer is often very great, and a trying torrid east wind, the Levanter, blows frequently between May and November. The winters are mild and healthy, snow and ice being rarely seen; the average rainfall, mostly occurring in the autumn and spring, reaches about 35 inches, and this, collected on roofs constructed for the purpose, descends into tanks for the use of the people. The "Rock" is sometimes ignorantly regarded as a mere barren, sultry, military settlement, but those who have done more than simply call there on a voyage to east or west know the charms of its clear calm sky, of its hues in the heavens above and in the seas below, of its gorgeous sunsets, and of foliage and flowers that display, in varied wealth, the myrtle, locust-tree, olive, almond, cactus, vine, fig, orange and lemon on cultivated ground, with a wild growth of clematis, roses, aloes, geraniums, and above 500 species of other flowering plants and ferns. The animal life includes abundant rabbits, with some foxes

and badgers. The eagle builds on the higher crags, and various kinds of hawks soar above land and sea. The Barbary ape and partridge are there alone found wild on European soil. These African monkeys, small tailless creatures, had been reduced in 1881 to fewer than a score, but strict protection, like that accorded to the stork in Holland, has now caused a great increase in the numbers of this amusing, trick-learning, species of apes, familiar in this country in connection with Italian organ-grinders. The Rock contains numerous natural caverns, of which the most spacious, called St. Michael's Cave, on the south-west side, at over one thousand feet above sea-level, is a magnificent hall 220 feet in length, 90 in width, and 70 in height, with its floor joined to the roof by stalactite pillars rising up 50 feet and connected by arches atop.

The commercial standing of Gibraltar, a free port, has greatly declined since the growth of steam navigation, but it is still, besides its uses as a place of call and a coaling-station, a great *entrepôt* of trade for the distribution of British manufactures over the Barbary States and in other quarters of the Mediterranean. There is a small export of wine, and the tobacco manufacture employs about 600 persons. The annual revenue arising from port-dues, crown-rents on estate in the town, and the duty on alcoholic liquors, which is the sole customs-impost, amounts to about £60,000. Authority is wholly in the hands of the Governor, who is also Commander-in-chief, and nominates a board of Sanitary Commissioners for the control of the water-supply, drainage, and other matters of importance to the public health. Most of the inhabitants are Roman Catholics. There is a Protestant cathedral, for the See of Gibraltar, established in 1842, with an Anglican bishop subject to the Archbishop of Canterbury, and having an extensive jurisdiction in the Mediterranean. The educational system, in addition to some private English schools, includes 14 elementary schools for the poor, of which 6 are Roman Catholic, all subsidized by government, with about 1900 pupils on the rolls, and managed by the clergy of different denominations. There is a daily post to England by way of Spain and France, and submarine cables give telegraphic communication with Malta, Tangier, Cadiz, Lisbon, and England.

The special character of Gibraltar, as a post of strength and

strategical value, is partly shown in the jealous precautions which guard the immigration of new residents. The place is maintained by Great Britain as a coaling-station secured by artillery-fire, as a military and naval arsenal, and as a port of refuge, in case of war, for our mercantile marine, for war-cruisers, or for squadrons over-matched for a time by any hostile force. It is with this view that the Rock is manned by a garrison that always exceeds 5000 men, and that incessant care and money are expended on the renowned fortress that bristles with more than a thousand cannon, from the sea-wall mounting 100-ton guns to the very summit where artillery of the utmost power has now an unbroken circle of fire protecting the anchorage in Gibraltar Bay, covering the town between the Rock and the westward sea, and sweeping the Mediterranean for miles to the east. Nothing can surpass the combined grimness, grandeur, and beauty of the wondrous series of works as closely viewed in traversing some miles of roadway. On the north and west, at every point whence shot and shell could be brought to bear against attack by sea or land, a gun peeps out, with its terrible power dormant amid the charms of shrub and flower, as it frowns from some secluded nook. On the north-western side, nearly three miles of galleries, spacious as railway-tunnels, in an upper and lower tier, with port-holes for cannon at intervals of 12 yards, have been blasted and hewn out of the solid rock. The fortress has often been foolishly described as "commanding" with its guns the Strait of Gibraltar, which at this point, due south to Ceuta, is 15 miles in width, while the artillery of Gibraltar, apart from this fact of the distance across, is mainly pointed to the north and west. The true value of the place has been above indicated, and with a garrison to man the works, ample ammunition in store, and food for the people during a possible lengthy blockade, Gibraltar may be fairly regarded as impregnable, in the true and strict sense of the word.

Malta, our second stronghold on the shorter sea-route to our Eastern empire, lies, with the adjacent Gozo and Comino, in the centre of the Mediterranean from east to west, about 60 miles south of Sicily. History, in the course of nearly 3000 years, makes known to us a long succession of occupiers by right of conquest. The Phœnicians, a thousand years before the Christian era, became the colonisers of a land so suitable, from its position, to commerce in

their world's great inland sea. Three centuries elapsed, and Greek possessors gave the isle its name of Melita. About 480 B.C., the Greeks gave way to Carthaginian holders, who succumbed in 216 B.C. to the Romans. In A.D. 58 St. Paul was shipwrecked in the bay, according to tradition, that bears his name upon the northern coast. The fall of the Western empire of Rome gave Malta, in succession, to the Vandals and the Goths. The arms of Belisarius, early in the sixth century, annexed the island to the Eastern empire, but prosperity and civilization almost perished through internal warfare, and in the ninth century the Saracens held sway. The conquering Normans, under Count Roger of Sicily, became masters in the year 1090. Towards the end of the thirteenth century, conquest gave Malta to Pedro, king of Aragon, and a Spanish rule of two centuries and a half made, in the end, the emperor Charles the Fifth controller of her fortunes. The year 1530 was an epoch in the history of the land. Seven years before, the famous mediæval religious and military order known as the Knights of St. John of Jerusalem, and then as Knights of Rhodes, had been driven from that island by the Turks under Sultan Solymán. The vanquished body made their way to Candia (Crete), and in 1530 Charles bestowed upon them Malta and Gozo, as a "noble and free fief", to be held of him and his successors as suzerains, with the homage of a falcon annually offered. It was their charge to make of Malta a Christian citadel against the Turks, and to keep the great commercial sea as clear as might be of piratical rovers of the Moslem creed. Under the rule of twenty-eight successive Grand Masters, the Knights of Malta, as they were now entitled, held the territory for more than two centuries and a half, and left, in energetic use of their great wealth and power, marks of their presence that can never be effaced. The capital, Valetta, founded in 1566 by Grand Master La Valette, owes to the Knights its stately buildings, and the many miles of bastion and curtain, lines and forts that, on the sea-front and towards the land, protect the town and both its admirable harbours. Theirs, too, are the good roads; the fine church of St. John; the "hotels" of the eight languages of the Order, now providing quarters for the British officers; the Grand Master's palace, with its splendid tapestry and armoury of ancient and modern weapons; and the great hospital, with space for two thousand patients, where the Knights, in fulfil-

ment of their olden vows and duty as a charitable brotherhood, tended the many sick of those unsanitary days.

British possession of Malta and its dependencies came early in the great Napoleonic war. The Knights, once so powerful, wealthy, and renowned, had fallen on evil days. Decayed and feeble, they were in no condition to resist the arms of France, even with the utmost zeal and will. Traitors were found, however, among the French Knights, and the last Grand Master, Hompesch, devoid of strength of character to deal with such a crisis, tamely surrendered, in June, 1798, to the French fleet on its way to Egypt, where it was soon destroyed by Nelson. The victory of the Nile, on August 1st, emboldened the Maltese to rise against their new masters, who were forced to take refuge in the towns, blockaded inland by the people, and from the sea by British ships, for the space of two years. In 1800, the French forces were thus driven to surrender, and the Maltese eagerly desired that Great Britain should assume the rule. The government of the day, with William Pitt, followed by Mr. Addington, in power, failed at first to see the value of a position which Buonaparte had, before his defeats in Egypt and Syria, viewed as one safeguard of a projected French dominion in the east of Europe, which should be a basis for Napoleonic empire in Asia. The Peace of Amiens, in 1802, arranged for the restoration of Malta to the Knights, but the suspicious proceedings of Napoleon in other quarters induced the British cabinet to retain possession, an act which their opponent made one of his chief pretexts for renewal of the war. The Treaty of Paris in 1814 finally gave "the Island of Malta and its dependencies" "in full right and sovereignty to his Britannic Majesty".

Malta, 17 miles in length, and 9 in breadth, measures in area 95 square miles; Gozo and Comino make up over 20 more. The chief island of the group has, on its southern shore, a fairly even outline with cliffs that rise 400 feet in height; the west side shows but two wide open bays. The northern coast is far more broken, with the spacious Mellieha and St. Paul's Bays, and many smaller inlets, as St. George's and St. Julian's Bays, besides the two grand almost landlocked harbours of Valetta. On the south-east is the fine natural harbour called Marsa Scirocco. The surface of the country presents valleys and steep hills of which the highest

reaches up to near 800 feet. The lack of woods and of green hedges, here replaced by lofty walls of stone, as a shelter against wind, gives bareness to the aspect, but the artistic eye finds ample beauty in the contrasted colouring of reddish and yellow sandstone, and of limestone rocks in white and gray, with the fair blue sea that beats upon the shores, on two sides running deeply, as above described, into the land. Devoid of lakes and rivers, and even of any purling brook, Malta obtains water from springs arising at the foot of hills behind the picturesque old capital, Citta Vecchia, lying in the west centre of the island. From that point the supply is brought through galleries underground to the aqueduct, 8 miles in length, which, built by the orders of Grand Master Vignacourt, conveys it, over some thousands of arches, to Valetta. Since 1867, when new springs were found, a far more abundant supply of water has been furnished, and recent work has excavated reservoirs for the receipt of the overflow, in rainy seasons, from the aqueduct, and has provided every household in Valetta, and every larger village in the country districts, with this indispensable requirement for cleanliness and health. The completion of a new drainage-system at Valetta, where the sewage, until recent years, was poured into the harbours, has told well upon the death-rate, and the island now ranks among the healthiest resorts, for winter residence, in the whole Mediterranean. The summer-heat, varying from 73 to 82 degrees between June and September, is daily tempered by the coolness of an evening breeze from off the sea. The rain-fall varies yearly from 15 to 24 inches, mostly coming in December and the two succeeding months. The drawbacks of the climate are the warm *Sirocco*, damped by the salt mists of the sea, that blows across from the Sahara; and the roaring, violent *Gregale* of early spring, the modern name of the "north-easter", *Euroclydon*, or *Euraquilon*, that wrecked the ship which bore St. Paul.

The thin soil of the island, earth that covers soft calcareous rock, is very fertile, and, under the skilful culture of the hard-working people, produces cotton, corn, figs, oranges, grapes, and melons, with early onions and potatoes for the English market, and a tall red clover that makes excellent forage for the horses, mules, asses and horned cattle. The corn-crops include wheat, barley, and maize. The carob or locust-tree, with its dark evergreen foliage, and long pods filled with a sweet mealy pulp, gives food for cattle

and the poorer folk, and the prickly pear, or Indian fig, supplies its egg-shaped yellow fruit, with juicy, sweetly-acid, purple pulp. Abundant flowers lend beauty to the land; the palm and cactus, and many of the sub-tropical plants of northern Africa, are found. The densely-populated group, exclusive of the garrison, contains above 170,000 people, of whom less than 4000 are British and foreign civil residents. The natives, in Malta, number nearly 1500 to the square mile; Gozo, with about 20,000 people, has a density two-thirds as great. The rapid increase causes emigration so extensive that more than 50,000 Maltese are found dispersed in northern Africa and the Levant. The race is mainly of Arab origin, with some admixture of Italian and traces even of the old Phœnician blood. Their language, Arabic in base, is strongly dashed with Italian, Greek, and other tongues; the speech of the superior educated class is pure Italian, and, in many cases, also English, which has now become the sole official language. The British currency, since 1887, has superseded the old coinage of the Knights of Malta. The native nobles, of families that date from Norman times, with marquises and counts created by the knights, are poor and proud, and were once jealous of the British residents of the higher class. They have, however, been conciliated in these later days by a full official recognition of their rank and by admission to a share of rule. The main body of the people, dark-skinned, with comely features, are a good-humoured, frugal, and contented race, most loyal to the British rule, with a chief fault in a quick hot temper, causing a far too ready use of knives in quarrel. There are small manufactures of cotton for home use, of gold and silver filigree-work, and of the well-known lace. The men make excellent seamen and mechanics, and decisive evidence of thrift is given in the savings-bank deposits that amount to nearly half-a-million sterling. The devotion of the people to their island home and to the Roman Catholic faith is equally marked. Religious matters are, for them, in charge of the bishops of Malta and Gozo, who supervise the labours of 1200 clergy.

The state of education is fairly advanced, with a University and higher public school (*Lyceum*) at Valetta; a good supply of private secondary schools; and free education for about 12,000 pupils in near a hundred primary and infant schools under state-control. A line of railway, about 8 miles in length, joins Valetta with the old

capital; the telegraph connects the chief points of the island both for military and naval, and for private uses; the telephone is common at Valetta, and cables run direct to Gibraltar, Algeria (Bona), Sicily, and Alexandria. With no direct taxation, a revenue of nearly £300,000 a-year is furnished by the rent of the land, of which two-sevenths is owned by Government, while the rest is nearly equally divided between the Church and private owners, and by licences and customs-duties. Valetta is the seat of an enormous transit-trade as an *entrepôt* and port of call for countless vessels going to and fro between the eastern and the western worlds. The Governor of Malta, who also holds the chief command of all the troops, is now assisted, under the reformed constitution of 1887, by an executive council of 10 members, while legislation is intrusted to a Council of Government composed of 20 members, 6 official, and 14 elected. Four of these chosen members come severally from the classes of ecclesiastics, nobles, members of the chamber of commerce, and University graduates; the others are returned, under a six-pound annual real-property or rental franchise, by the voters of the ten electoral districts of the islands. Municipal or other local government does not exist.

On the vast importance to the empire of a firm hold on Malta as the headquarters of our Mediterranean fleet; as a coaling-station for our naval and mercantile marine; and as a chief link in a chain of posts that passes round the world, there can be no need to dwell. Using the old work of the Knights of Malta as a basis, British rulers have secured with fortifications of enormous strength in massive rock and mounted guns the two noble harbours that, on the north side of Malta, are divided by the rocky tongue of land, 3000 yards in length, on which the chief city stands. Valetta, with its suburbs of Floriana to the south-west, and Sliema to the north, beyond the smaller harbour, has about 40,000 people; the suburbs to the south, beyond the greater harbour, raise the total to about 65,000. The garrison to man the works amounts to about 7000 men of the artillery and line, supported by a local force of militia and gunners numbering about 1500 men.

CHAPTER II.

BRITISH POSSESSIONS IN ASIA.

Cyprus—Perim—Socotra—Somali-land—Aden—Bahrein Islands.

As we pursue our course towards India, on leaving Malta, a divergence to the north-east from the direct track to Port Said brings us to that anomalous possession of the British crown, *Cyprus*, ranking third in size, next to Sardinia and Sicily, among the islands of the Mediterranean. The chequered history of Cyprus shows it forth as held in turns by the Phœnicians and the Greeks; by Egypt and Persia and Egypt again; by all-subduing Rome; by the Eastern empire whose capital was at Constantinople; by the Khalifs and by the Greek empire again; by Richard the First of England; by Guy de Lusignan, the French crusader and his descendants; in part by the Genoese; from 1489 A.D. to 1571 by the Venetians, and then, on conquest from the famous commercial republic, by the Turks. Among the most interesting historical facts connected with the island and its people are those concerning Pagan worship, Christianity, and Richard Cœur de Lion. The rites of Ashtoreth (Astarte), the Phœnician goddess, were superseded, in the days of the Greek colonies, by those of Aphrodite (the Roman Venus) established at Old Paphos (*Papho* now, as the name of a mere site), on the west coast, where stood the famous temple of the deity of love and female beauty known as “Cypris” and “the Paphian goddess”. The richness of the mines in the Greek and Roman period gave a name that originated “copper” to the “Cyprian” metal thence extracted. Zeno, the founder of the Stoic school of Athenian philosophy, was born at Citium, on the south coast. The Cypriotes were among the earliest of the Gentile converts to the Christian faith, and in the Acts of the Apostles (ch. xiii.) we find St. Paul (still called *Saul*) sailing to Cyprus in company with Barnabas; preaching in the Jewish synagogues at Salamis, on the east coast, the chief town of the island; journeying “through the whole island unto Paphos”; converting the Roman pro-consul, Sergius Paulus, and confounding with sudden blindness the “sorcerer” or false prophet Elymas; and changing his own name to *Paul*, in recognition of the ready acceptance of the faith

by the "man of understanding", the Roman governor whom Elymas had sought "to turn aside". In 1184 Isaac Comnenus, nephew of the reigning Greek emperor, became independent sovereign of Cyprus, and seven years later the blue-eyed, fair-haired, athletic, renowned feudal warrior, the foremost knight of the Third Crusade, appears upon the scene. In 1191, Richard Plantagenet was sailing for Palestine, with his betrothed lady Berengaria, princess of Navarre, and her mother, on board a vessel of his fleet. Three ships were wrecked on the coast of Cyprus, and the survivors of the crews were made prisoners by the king. Berengaria only escaped seizure, after her ship had sought shelter at Limasol, on the south coast, through the captain hastily putting to sea. In the days of chivalry, its chief champion sought instant satisfaction and redress; failing which, he promptly landed his men, conquered the island, and dethroned the king. On a May-day in 1191, the nuptials of the conqueror with Berengaria of Navarre were celebrated at Limasol, with his kinsman, the Archbishop of York, officiating. In 1192, Richard sold the island to his comrade in the conquest, Guy de Lusignan.

In passing on to the fact of the British tenure, we have simply to record that in 1878, under the Treaty of Berlin, a convention with the Sultan of Turkey transferred the island to our occupation and administration as a "place of arms", in return for which Great Britain undertakes to pay, and does pay, a certain portion of interest to some Turkish bondholders, and also to defend Turkey's Asiatic dominions against Russia. The island has been used as a sanatorium for British troops, and is also regarded as, in some mysterious way, adding to our strength in the Mediterranean waters.

Lying about 50 miles from Syria to the east, 40 from Asia Minor to the north, and 250 from Port Said southwards, Cyprus has an area of about 3600 square miles, with a coast-line, for the most part, breaking only into wide unsheltered bays. On the whole northern side is a mountain-range whose height exceeds 3300 feet, below which lies a great central plain, the Mesaoria, while the west and south-west are filled with the main chain and offshoots of mountains reaching a height of 6400 feet in Mt. Troödos. The rivers are mostly mountain-torrents, flowing full after rain and dried up in the summer-heat; the two largest, the

Pedias and Idalia, are not navigable, ending, after their confluence, in extensive marshes near the sea on the east coast. When the average rainfall of 17 inches, between October and March, becomes deficient, there is danger of a water-famine, both for animal life and for the crops, owing to neglect of storage and the lack of irrigation-works. The fairly healthy climate is very hot in summer, tempered by sea-breezes. Agriculture is the chief industry pursued by a population exceeding 200,000, and raising good supplies of wheat, barley, wine, flax, the usual sub-tropical fruits, and carobs or locust-beans, the last being largely exported to England for the making of cattle-foods. There are great numbers of sheep, goats, and horned cattle. The main drawbacks to prosperity for tillage have been the usual thriftless destruction of forests, with the consequent diminution of rain, and the ravages perpetrated by locusts. Matters are mending under British rule. Some care is now taken to preserve the remaining woods; irrigation-works are begun; and the locust-pest has been greatly abated by the excellent "pit and screen" system which stops and traps the swarming columns of young locusts on their march across country, and gathers them in trenches ready for destruction. The production of wine is very great, affording supplies to the growers in Austria, Italy, and France for strengthening and flavouring their poorer qualities of grape-juice. Silk of superior strength is furnished by the worms, and good cotton and wool are among the products. The minerals include good sandstone for building, and gypsum, from which large quantities of plaster of Paris are made at Larnaca, and exported thence to Alexandria. The sponge-fishery on the coasts sends 25,000 pounds' worth of annual produce to Smyrna. During the British occupation, imports have risen from a value under £180,000 in 1878 to about double that amount, and the exports show an increase from less than £160,000 to over £400,000.

In religion, nearly one-fourth of the people, or 48,000, are Moslem; nearly three-fourths are members of the Greek Church, with their own independent archbishop. In language, a like division occurs, the Turkish spoken being very pure, the Greek a corrupt form of the Romaic or modern Greek. Nikosia, the capital and seat of government, in the north centre of the island, has about 13,000 people; Larnaca and Limasol, on the south coast, the two chief ports, contain each about 7500. Education,

partly supported, and duly inspected, by the British government, is in a fair condition, with over 14,000 children in elementary schools. The British governor, styled a "High Commissioner", is assisted by an Executive Council of four officials; the legislature, of 18 members, has 6 chief office-holders and 12 members chosen by voters of five years' residence, and paying taxes to a certain amount; 3 are chosen by Mohammedan, and 9 by non-Mohammedan electors. Municipal councils of popular choice direct local affairs in the towns. A complete system of law-courts, civil and criminal, renders justice to the people, the English judges having native assessors. The Cypriotes, well satisfied with the British occupation, are easily kept in order by a force of about 700 military police, horse and foot, chiefly Mohammedans, under British officers. The garrison, composed of a battalion of British infantry, quartered, during the hot season, under canvas overshadowed by the huge towering pines on the south-eastern slopes of Mt. Troödos, where the governor has also a summer-residence, was withdrawn early in 1895. Communications, at present, are limited to good roads and land telegraph-wires, with cables, to Latakia, in Syria, and to Alexandria, weekly mail-service to Alexandria, Smyrna, and Constantinople by the "Messageries Maritimes" and "Austrian Lloyd", and steamers running direct to Syria and Egypt. The revenue from tithes, customs, excise, property and income-tax, and a duty levied on sheep and goats, is under £200,000, and now requires no aid from imperial funds in order to meet the expenses of rule and the amount payable under the Convention.

Still making our way to India, through the Suez Canal and down the sultry, island-studded Red Sea, we come, in the very jaws of the strait called Bab-el-Mandeb, or "Gate of Tears", from its dangers to the mariner, on the isle known as *Perim*. This barren little territory, of volcanic origin, $1\frac{1}{2}$ miles from the coast of Arabia, and about 10 from Africa, is a crescent $3\frac{1}{2}$ miles in length by $1\frac{1}{2}$ across, inclosing a deep fine harbour between its horns. The place was occupied in 1857 as a station for a lighthouse, and has now become important for coaling. Under the government of Bombay, Perim has a garrison of fifty men from the infantry-corps at Aden, with a coolie-population of a few hundred for the supply of steamers with fuel. Drinking-water

is obtained by condensing-apparatus, as well-sinking fails, and supply from the tanks at Aden was troublesome.

Socotra, an island 70 miles long and 20 broad, with an area of 1380 square miles, lies 150 miles east by north from Cape Guardafui, on the direct route to India. There are high barren table-lands, with well-wooded mountains rising over 4000 feet, inclosing fertile vales, and strips of rich soil surround the coast. The Bedouin Arabs of the hilly districts, wandering with great herds of cattle, sheep, asses, and goats; and the village-dwellers in the valleys and on the coast, of mixed African, Arab, Portuguese, and Indian race, are said to number 10,000, living on the flesh and milk of the flocks and on the dates of the abundant palms. The climate is cool, for that latitude, and not unhealthy. The chief products for trade are the valuable Socotrine aloes and dragon's blood, with pearls obtained from a fishery near Tamarida, on the north coast, the chief town, which consists of a few score of stone houses at the foot of the highest hills. The island was formally annexed by Great Britain in 1886, as a dependency of Aden, under the Bombay Government. The position is likely to make it valuable as a naval station with reference to our communications and trade with India by the Suez Canal and the Red Sea.

Somali-land, geographically African, is here given as being, in government, a dependency of Aden. The region, as a whole, includes the great eastern horn of Africa, a partly-barren territory, with tropical trees and grass, in some districts, that furnish food for the fauna, large and small, including the herds of camels, oxen, horses, sheep, and goats belonging to the Somal people who, supposed to number half a million, lead a pastoral, patriarchal life under the rule of many petty chiefs. These natives are of mixed Hamitic and Arab race, Mohammedans in religion, jealous of foreign intrusion, and given to raids, for the slave-trade, on the weaker inland tribes. During the last half-century, British governments, from time to time, have had an eye on the coast-region of Somali-land, with a view both to the development of trade in our cotton-goods and to additional security for our position at Aden. In 1887, a British protectorate, controlling about 30,000 square miles of territory, was established on the northern coast from the Gulf of Tajourah to 49° east longitude, administered by a Political

Agent and Consul. The territory includes the fortified ports of Zeyla (Zaila), Bulhar, and Berberah, defended by Indian troops under British officers. The import trade in rice, cotton-goods, and dates, and the export of ostrich feathers, ivory, hides, myrrh, and frankincense, with sheep in large numbers for Aden and other Arabian ports, each exceeds the yearly value of £250,000.

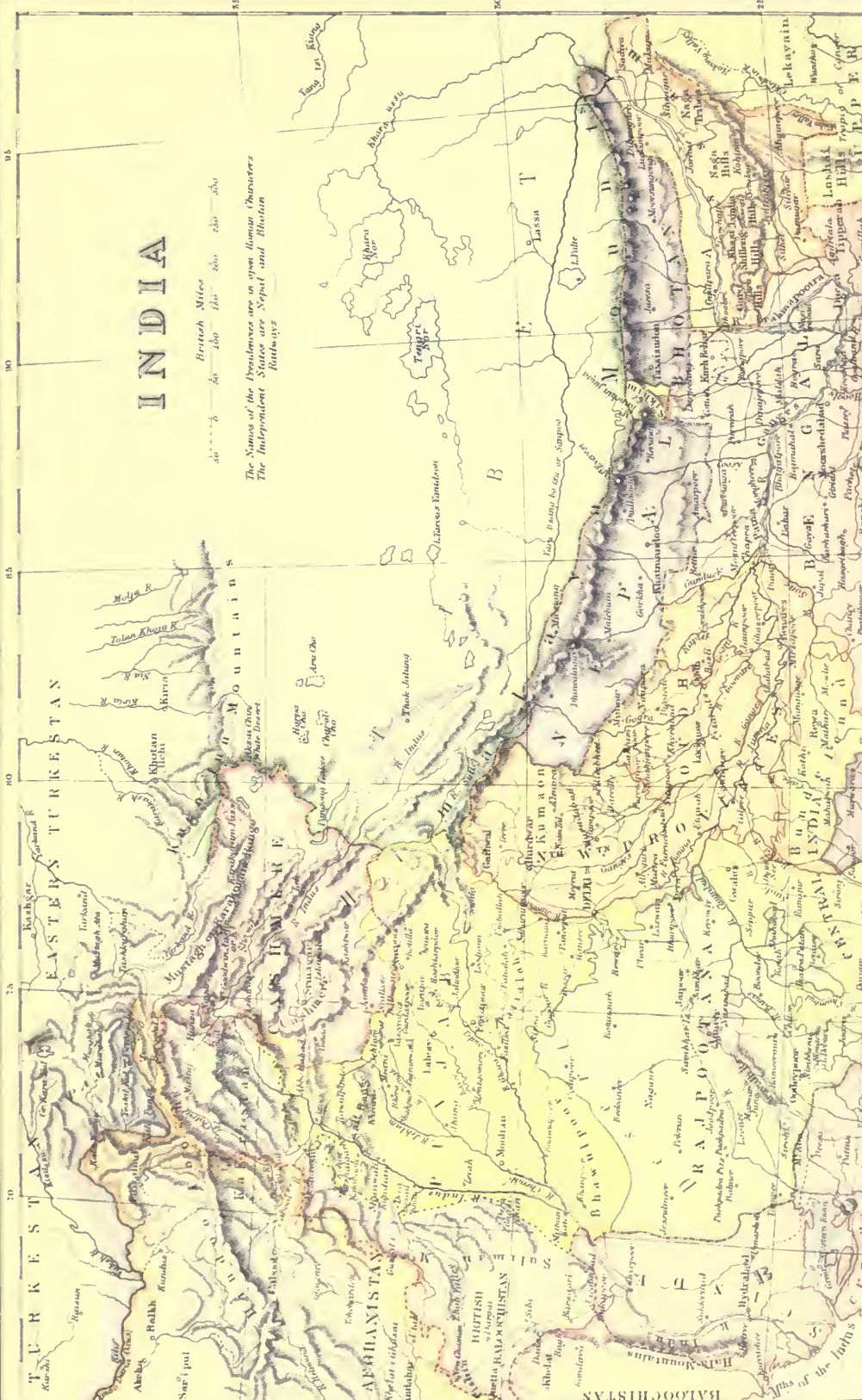
Aden, one of the most valuable and important dependencies and strongholds amongst the smaller possessions of Great Britain, mainly consists of a peninsula and town on the south-west coast of Arabia, at rather more than 100 miles distance from the entrance to the Red Sea. Many centuries before the Christian era the place had a thriving trade, which continued during the days of the Roman empire, and, on the rise of Mohammedan power, still prospered under the rule of the Khalifs (Caliphs) from the eighth to the tenth centuries. With Egypt on the west, and India and China on the east, there was direct commercial traffic. From the eleventh to the sixteenth centuries, the place was in the hands of various dynasties of chieftains in the south of Arabia. The adoption of the Cape of Good Hope route to India was a heavy blow to the trade of the town. In 1513, a strong Portuguese expedition from India, under the famous viceroy Albuquerque, was repulsed after a severe conflict. Five years later, Sultan Selim I. of Turkey, the savage, fanatical, energetic, and warlike conqueror of Egypt, gained possession by a cruel act of treachery, and his son and successor, Solyman (Suleiman) the Magnificent, held Aden as a base of operations against Portuguese possessions in the East. Early in the eighteenth century, ships of the English and Dutch East India Companies touched there, but foreign presence was resented, and no "factory" for trade could then be established. On the decline of the Turkish power, Aden again fell into the hands of native Arabian chiefs. It was not until early in Victorian days that the revival of an overland route to India gave the position a new value in the eyes of British rulers, and that an opening for its acquirement was found in some acts of outrage and treachery committed against British subjects. The first foreign conquest of the Queen's reign was effected when, in January, 1839, two war-steamers and other ships from Bombay, with 700 British and native troops under Major Baillie, captured the place which, from the strong fortress and prosperous com-

mercial town of pre-Turkish times, had become a mere miserable village of 600 people, with some batteries easily silenced. Several Arab attacks in force were from time to time repelled, and with a great revival of trade and increase of population, the purchase of territory, in 1868 and 1882, along the isthmus and inland, with a neighbouring island and peninsula, raised the area of the settlement to over 70 square miles. In 1850, our Indian government made Aden a free port, a change which drew thither much of the trade, between Africa and Arabia, which had hitherto sought Mocha and Hodeida, on the south Arabian coast of the Red Sea.

The voyager who views the peninsula of Aden on the north-east side, where the town is situated, sees a strong likeness to Gibraltar, save that the huge mass of volcanic rocks, five miles long from east to west, rising to a height of nearly 1800 feet, has some sharply-cut peaks. On a close approach he finds a place of over 30,000 people, Arabs and Somalis, Hindus, Turks, Jews, Egyptians and Europeans, dwelling in houses built in the deep hollow of an extinct crater. Strong fortifications defend the excellent harbour to the west, used for the very important work of supplying coal to steamers, as well as for the vastly grown trade which includes the chief Arabian commerce with Africa, and a great traffic of transshipment between European and Asiatic ports. The imports of cotton goods and other manufactures exceed two millions sterling in yearly value, and the exports of coffee, gums, spices, hides, and other articles reach almost an equal amount. The very dry hot climate of this burnt-up barren region is not unhealthy, the chief natural deficiency being the scantiness of water where wells give but a limited supply, and the annual rainfall only reaches from 2 to 7 inches. The drinking-water is chiefly obtained from the condensers of the government and private persons. The famous and magnificent reservoirs or tanks, rock-cisterns on the north-west of the town, constructed centuries ago by unknown authors, and then allowed to fall to decay, have been partially restored, and now furnish a supply for horses, camels, and other cattle, as well as for the population who will not or cannot buy the distilled water at from 3*s.* 6*d.* to 4*s.* per 100 gallons. The government, in dependence on Bombay, is administered by a Political Resident, who also commands the garrison of one British and one Sepoy regiment of infantry, with a troop of cavalry and

three batteries of militia-artillery. His duties are shared by two assistant-residents and a magistrate. There is also a force of land and water police. Primary education, in Arabic and English, is given to the boys at a government school. There are telegraphic cables to Bombay, Suakin, Suez, and to Hallaniyah, one of the Kuria Muria islands, on the south-east coast of Arabia, where a signalling station is maintained. This group, otherwise called Kuriyan-Muriyan, was ceded in 1854 by the Arab ruler of Muscat for telegraphic purposes. It is needless to descant on the value and importance of Aden, as a link in our chain of fortified coaling-stations, lying at the distance of 1340 miles from Suez, at the southern end of the Canal, 1630 from Bombay, and about 2100 from Colombo (Ceylon). As a place of trade, it is susceptible of great further development, and gives us a commanding position in those waters.

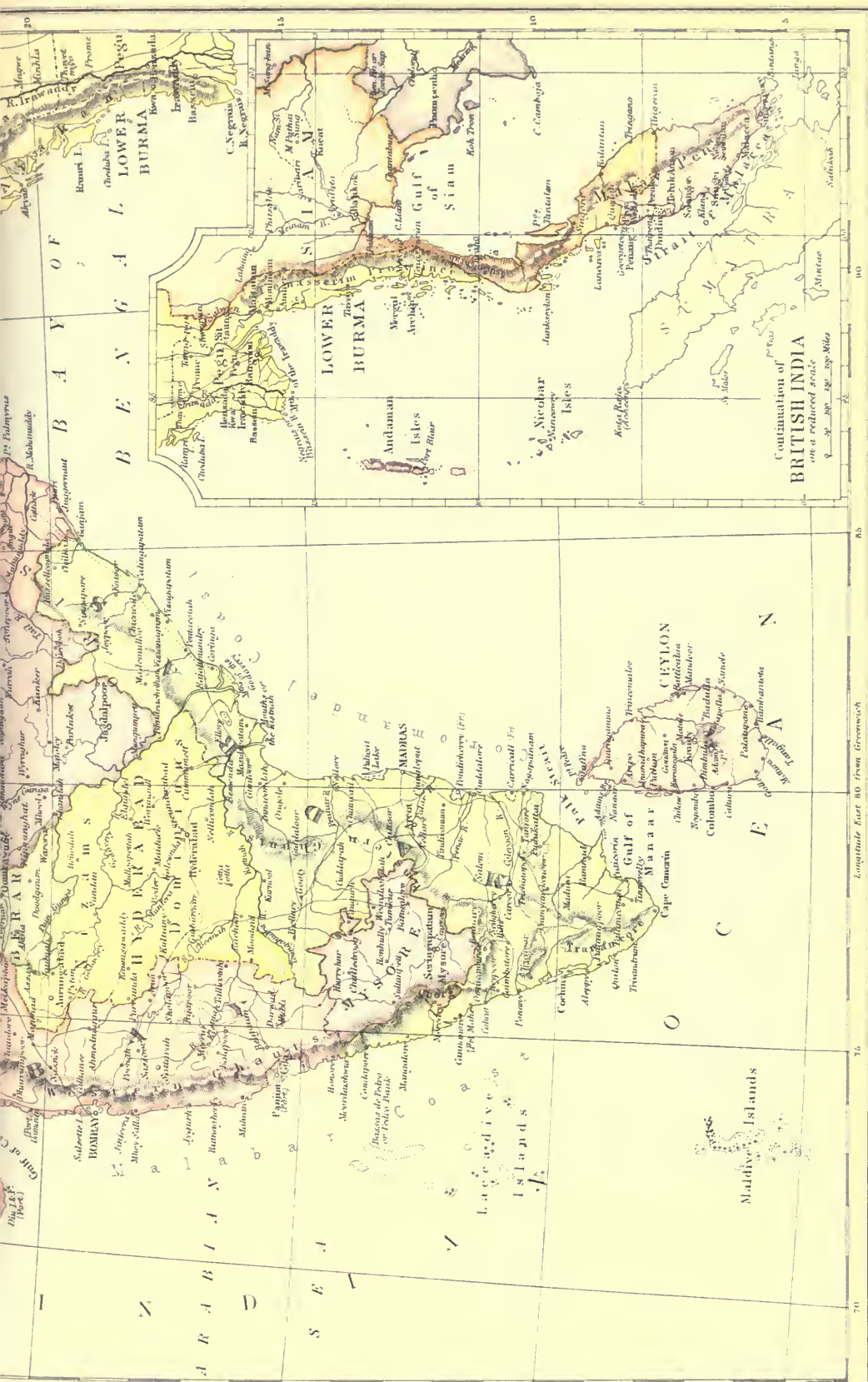
The *Bahrein Islands*, on the western coast of the Persian Gulf, have formed a "British Protectorate" since 1867. The ruling Arab chief, Sheikh Esau, was then recognized by our government, with a formal renewal of British support in 1870, when his rivals were deported to India. The largest island of the group, called Bahrein, is about 30 miles long by 10 in breadth; the surface, in the centre, is hilly; the soil is fertile. The population may number 50,000, of whom about one-fifth are found in Manameh or Manama, the commercial capital, stretching in scattered houses for miles along the shore, with a good harbour for the considerable trade which is carried on. The island of Moharek, containing the seat of government, of the same name, with a population of 8000, lies north of Bahrein, and is 4 miles long by $\frac{1}{2}$ mile wide. The other half-dozen islets are mere rocks. The people are Moham-medans in religion, and live, apart from the two towns, in about fifty villages scattered over the two larger islands. The main industry of Bahrein is the pearl-fishery, known in the classic days of Greece and Rome, and now employing in the season about 400 boats, each manned by from eight to twenty men. The whole trade of the islands, in 1895, had a value of nearly a million sterling, almost equally divided between imports and exports. The first included pearls from other parts of the Persian Gulf, worth £61,889; grain and pulse, £92,856; cotton goods, nearly £32,000; with coffee, dates, tobacco, cattle, provisions, and specie. Nearly



INDIA

British Miles
Indian Miles
The Simus of the Presidencies are in open Roman Characters
The Independent States are Nepal and Sikkim
Railways





£256,000 worth of these imports came from British India and our colonies; £78,374 in value from Turkey. The exports were made up of pearls worth about £214,167; grain and pulse, £29,375; cotton goods, about £22,000, with coffee, dates, canvas, shells, and specie, details which show that Manameh is a considerable depôt for re-export commerce. Of the exports, the value of £229,403 went to British India and our colonies, and over £131,000 to Turkey.

CHAPTER III.

BRITISH POSSESSIONS IN ASIA (*contd.*). INDIA: HISTORY FROM
1798 TO 1828.

Governorship of Lord Wellesley—War declared against Tippoo Sultan—Colonel Wellesley and General Harris—Capture of Seringapatam and death of Tippoo—Partition of Mysore—Adoption of the “Subsidiary System”—Mahratta wars—Victories of Assaye and Argaum—General Lake captures Aligurh and Agra—Battle of Laswari—War with Holkar of Indore—Lord Wellesley superseded—Lord Cornwallis becomes Governor-general—Sir George Barlow succeeds him—Sepoy mutiny at Vellore—Lord Minto Governor-general—The Pindaris and Pathans—Renewal of the Company’s charter in 1813—The Indian trade thrown open—Lord Moira (Hastings) Governor-general—The Nipalese war—General David Ochterlony—Operations against the Pindaris—Third Mahratta war—Pacification of Central India—Lord Amherst Governor-general—Storming of Bhurtpore.

The period of Indian history now coming under review is mainly connected with the names of two great statesmen, Lord Wellesley and Lord Hastings, who, resuming the policy of Warren Hastings towards native rulers, greatly extended British sway in overthrowing the Mahratta power and so making us masters of the centre and the western side of the peninsula. Intervention and annexation became the principles of action when the supreme direction of Indian affairs passed from the hands of the Company, under Pitt’s Act of 1784, to the Governor-general and the President of the Board of Control in London. Being unconnected with any special views as to the increase of commerce, this policy of Lords Wellesley and Hastings was generally opposed by the Directors of the body whose monopoly of trade, renewed in 1773 and 1793, was first seriously lessened in 1813 and finally abolished twenty years later. The cessation of formal regard to trade-considerations and the destruction of monopoly, or the establishment of free trade, were

followed by the vast extension of commerce which is the chief benefit now derived by Great Britain from her paramount position in that quarter of the world.

The second Earl of Mornington, an Irish peer, eldest brother of the great man who began life as the Hon. Arthur Wellesley, arrived at Calcutta as Governor-general in 1798, having already risen, by his parliamentary abilities, displayed in the British House of Commons, as well as in the Irish House of Peers, in support of William Pitt, to be a privy-councillor, a member of the Board of Control, and an English peer as Baron Wellesley. He came, at a critical time, to lay the basis of British supremacy in India, and to create a system of imperial sway, under which native princes were to be allowed to retain the outward forms of sovereignty and to rule their own territories only on condition of surrendering political independence in regard to other states at home and abroad, and of being, thus far, subordinate to the British rulers at Calcutta and in London. In respect of native powers, Wellesley had to deal, firstly, with the Mohammedan princes, of whom the chief were the Nizam or Viceroy of the Deccan, ruling at Haidarabad, and Tipu (Tippoo), Sultan of Mysore; secondly, with the Hindu or Maratha (Mahratta) confederacy of sovereigns, headed by the Peshwa of Poona, under whom were loosely ranked the Gaekwar of Baroda, Holkar of Indore, Sindhia of Gwalior, and the Raja of Nagpur, ruling in Berar. The new Governor-general was also the willing weapon of British hatred and dread of French power which, under the direction of Buonaparte, might again become formidable to our position in the south of Asia. Some regiments of French sepoys, or native troops trained and commanded by French officers, were in the service of the Nizam, and Frenchmen had disciplined and were now leading the troops of Sindhia. Tippoo, with his hereditary hostility to the British, was intriguing with the Directory in Paris, entertaining French officers, and masquerading as a republican with the planting of a "tree of liberty", and the assumed title of "Citizen Tippoo". The possession of Mauritius and the Isle of Bourbon (Réunion), to the east of Africa, gave the great enemy a strong position for assembling naval and military forces to assail British power in India. Above all, Buonaparte's presence in Egypt with a powerful army, and his reported schemes of Eastern conquest, might well cause alarm to the new British ruler. This

last danger vanished with Nelson's victory of Aboukir Bay, or the Battle of the Nile, on August 1st, 1798, and Buonaparte's utter discomfiture in Syria in the following year. The Governor-General, from the first, received the most valuable aid from his brother, Colonel Wellesley, who had reached Fort William early in 1797, in command of his regiment, the 33rd Foot. That rising young officer had already given proof of great ability and energy in military administration, and of rare sagacity in comprehending Indian politics, and in acquiring a mental mastery of the circumstances of our situation in India. He had strongly urged his elder brother's acceptance of his new post, and when they met at Calcutta in May, 1798, prompt and vigorous measures were taken, in recruiting the army, replenishing the arsenals, and restoring financial credit, to meet the pressing difficulties of the time. The Nizam was induced to disband his French sepoys, to maintain a British force in their stead, and to form an active alliance against Tippoo. The Mahratta princes would not form any close connection with the British, but Nana Farnavis, who was once more the real holder of power at Poona, undertook to give help in a war against the Sultan of Mysore. When Tippoo was proved, by a public proclamation at Mauritius, to have sent envoys to the French governor there with despatches for the Directory in which an offensive and defensive alliance against Great Britain was mooted, Lord Wellesley made no further pause. An explanation was sought, and when an evasive reply was given, with refusal to receive a British envoy, war was declared, and early in 1799, an advance was made, from several points, on Tippoo's territory. The main army, under General Harris, marched from Madras, with the left column, composed of the 33rd British regiment of infantry and a large body of the Nizam's troops, under the command of Colonel Wellesley. Other columns were on their way from the southern Carnatic and from Bombay. After defeat in a sharp action, the Sultan fell back on his capital, under the walls of which the invading armies united on April 5th, 1799. The result of this last siege of Seringapatam is well known. After suing for peace, and scornfully refusing to cede half of his dominions and pay the sum of two millions sterling, the son of Hyder Ali bade his enemies do their worst, vowing that it was "better to die like a soldier than to end his days as a pensioned Nawab". He had his desire. A bombardment lasting for nearly

a month, directed against the wall facing the river Cauvery, fordable at that season, made a practicable breach, and the place was stormed and taken on May 4th. The body of the brave Sultan was found in a gateway, and was buried, by Colonel Wellesley's orders, in the mausoleum of his family, with due respect. The great city of Seringapatam, the capture of which made a strong impression on the native mind, henceforth fell into decay, and is now little more than a deserted ruin. The conqueror was afterwards rewarded by a peerage as Lord Harris; in 1890 his descendant, of Belmont, near Faversham, in Kent, after acquiring fame with the bat, and as the restorer of cricket in his native county, became Governor of Bombay. The Governor-General was henceforth known as Marquis Wellesley. The central part of the conquered territory, or the original Mysore, was assigned to an infant representative of the old Hindu dynasty dethroned by Hyder Ali, and the lad thus passed from a hut to a palace. A triple partition was made of the rest between the British, the Mahrattas, and the Nizam, and it was during this period that the Madras Presidency assumed its existing form in the virtual annexation of the Carnatic, or the portion of south-eastern India ruled by the Nawab of Arcot, and of the principality of Tanjore. The sons of Tippoo, received by Lord Wellesley with the utmost kindness, were settled in semi-regal state, first at Vellore, and then in Calcutta, where the last of them, Prince Ghulam Mohammed, died in 1877, after a quiet and useful life as a citizen active in general public affairs and as a magistrate of a local court.

The establishment of British power in Tanjore was justified by the gross oppression under which the people were groaning; our assumption of rule in the Carnatic was provoked by the Nawab's deliberate treachery towards the British government in intrigues with Tippoo, involving the violation of a solemn pledge, in 1792, to have no correspondence, without British sanction, with any native or foreign state. These two examples are very instructive as setting forth the conduct, on the part of native princes, which in many instances called for British interference and led to the permanent extension of our sway which has been ignorantly denounced as the work of unscrupulous ambition. In southern India, under Lord Wellesley's administration, Tinnevely, Trichinopoli, and Madura also became British territory, with Malabar and Kanara, on the

western side. The states of Cochin, Coorg, and Travancore were made feudatories of the British government on the adoption of the famous "subsidiary system" which placed native states under our protection with a complete surrender of all international policy not known to and sanctioned by British rulers. No Frenchman or other European could be employed in the public service without the consent of the government at Calcutta, and, in all the more important states, the public peace was to be preserved by a native force, at the charge of the native rulers, and commanded by British officers. As a security for the expenses of this force, certain territories were to be ceded to full British possession and sway. Minor states, not needing internal control by any expensive force, paid tribute to the superior power. The British government, on the other hand, undertook the defence of all subsidiary states against every class of foreign foes. The Nizam, under the new system, became a feudatory, receiving British officers to command the "Hyderabad Subsidiary Force", and ceding back to Great Britain the territory granted him after the death of Tippoo.

Lord Wellesley then turned his attention to the Mahratta princes. When he strove to draw them into his "subsidiary" net, both Sindhia and the Raja of Nagpur rejected his proposals, and the Peishwa, Baja Rao, after the death of his minister, Nana Farnavis, in 1800, refused to dismiss the Frenchmen in his service, and would not be bribed, by an offer of some of the Mysore territory, to place himself in the same position as the Nizam. At this juncture, Holkar of Indore, in pursuing his own plans, came to the aid of the British ruler. Sindhia and Holkar went to war for the possession of Poona and the person of the Peishwa, their nominal chief, and Holkar gained the day. In October, 1802, the Peishwa was forced to flee from his capital, and, seeking British aid in his distress, was compelled to sign, on December 31st, the fatal Treaty of Bassein, which bound him to have no diplomatic relations, save through the British Resident, and, severing his connection with the other Mahratta princes, made him a feudatory of British rulers, and restored him to his throne, with a "Subsidiary Force" maintained at Poona on the usual terms. This humiliation of the Mahratta suzerain soon caused the second Mahratta War. Sindhia and the Raja of Nagpur sent their armies into the Deccan, and in August, 1803, hostilities began. Generals Wellesley and Stevenson

were in the field, and the former, in a brilliant campaign, took the strong fortress of Ahmadnagar (Ahmednuggur) and won the victories of Assaye and Argaum. Stevenson did good work in pursuing the enemy after Assaye, and in contributing to their utter rout at Argaum.

We must now turn to affairs in the north, concerning which the Governor-General had been subject to much anxiety. Before his arrival on the scene of action in India, British rule was firmly established, in the valley of the Ganges, as far north-west as Benares. It was one of his objects to extend our influence and power at least up to Delhi, the capital of the emperor or "Great Mogul" and his mockery of rule, as a prisoner in the hands of Sindhia and with a Mahratta garrison quartered in his ancestral palace. The position of the Nawab of Oudh afforded a chance for British aggrandizement. His sole defence against possible Afghan invasion lay in some battalions of British troops for which he was bound to pay an annual subsidy of about three-quarters of a million sterling. Ever in long arrears, he was now compelled by the Governor-General to hand over territory instead of coin, and in 1801 the Treaty of Lucknow added to our possessions the fertile territory known as the Doab (literally *Duab*, or *two rivers*), lying between the Jumna and the Ganges. The cession of this wedge-shaped tract of alluvial plain, the granary of Upper India, with the surrender of Rohilkhand (Rohilkund), to the north-west of Oudh, formed a very important advance towards the object of Lord Wellesley's policy. Brooding over Napoleon's ambitious schemes, as revealed in his abortive Egyptian and Syrian campaigns, and justly regarding the Peace of Amiens, in 1802, as a mere truce in the great European contest, the Governor-General looked with much misgiving to a possible French invasion, by way of the Red Sea and the Indian Ocean to some north-western port on the Indian sea-board, to be followed by a junction of that force with Sindhia's French battalions in and around Delhi. An ardent republican named Perron had succeeded De Boigne in the command of these French sepoys, and Lord Wellesley felt that there could be no safety until Sindhia's plans for empire in the north-west were completely baffled. Accordingly, when war in the Deccan began, General Lake, commander of the Bengal army, posted at Cawnpore, on the Oudh frontier, was ordered to march for Delhi, to overthrow Sindhia's French bat-

talions, and to make himself master of all that region. In August, 1803, the British commander, who had seen service in the Seven Years' War, and in the American Revolutionary War, and was victorious over the Irish rebels at Vinegar Hill, county Wexford, in June, 1798, moved forth from Cawnpore and began a brilliant and most successful campaign. The force under Perron fled at the first round of grape from the British guns, and the French leader, surrendering himself to Lake, passed into private life and the comfort of oblivion at the French settlement of Chandernagore. The fortress of Aligarh (Alighur), held by fierce and determined Mahrattas, under another European leader, and defended by works skilfully planned by French engineers, was actually stormed, after the repulse of two attempts at escalade, without any breach at all being made. In the face of a tremendous well-aimed fire from the enemy's matchlocks, and of showers of grape from guns in batteries, a massive outer gate was driven in by cannon-shot, and then a second, third, and fourth barriers of equal strength were overcome. The sepoys rivalled their British comrades in headlong courage, and when the British colours had been raised on a flagstaff that stood on the inner rampart, it was found that nearly 300 cannon and ample munitions of war had become the prize of the victors. On entering Delhi, the British general was received with some feeble show of state by the blind and aged Shah Alam, the emperor who, more than forty years before, had fled for refuge to the English in Bengal. The descendant of Aurangzeb, now again under British protection, was left to dwell in his palace, liberally pensioned by the government. The conquering course of Lake was brought to a close by the capture of Agra and the desperate battle of Laswari, a village in Rajputana. There, on November 1st, 1803, Sindhia's sepoys, his "Deccan Invincibles", 9000 foot, with 72 large guns and many lighter cannon, and from 4000 to 5000 cavalry, fought as natives had never fought before. In a strong position, including a steep-sided and rugged ravine and a well-fortified village, with the right flank and rear defended by a wide and deep *nullah*, or torrent-bed, full of water, every point of ground, inch by inch, was contested, and the British and native assailants, at first composed of cavalry alone, were thrice repulsed by volleys of grape and double-headed shot, from batteries lashed together with chains to prevent removal. When hundreds of Lake's

men had fallen, the skilful Mahratta general sought and obtained an hour's armistice on pretence of considering terms for ending the conflict and sparing further loss by the surrender of the Mahratta cannon. Meanwhile, Lake's infantry, the 76th British Foot and six battalions of Bengal sepoy, arrived on the ground, hungry from lack of their morning meal, and wearied by a march of 25 miles since midnight. They were accompanied by our field-artillery, and the British general, forming the men in two columns, sent them at the foe in a new position. The Mahratta guns, served with consummate skill, wrought fearful havoc, and, as our men advanced amidst a torrent of grape, canister, and double-headed shot, with shell from huge mortars exploding above and around, they were also forced to meet fierce charges of the enemy's cavalry. General Lake's horse was killed, and his son, Major Lake, was severely wounded, as he offered his own charger to his father. Major Griffiths, heading the native 29th Dragoons, was slain, but his men swept onwards, forcing their way through both Mahratta lines of foot; rode along the guns, cutting down the cannoneers; drove the Mahratta horse right off the field; and then, re-forming in rear of the enemy's position, rode back again on their infantry-ranks at the moment when Lake, sword in hand, led our 76th regiment and their gallant native comrades in a bayonet-charge, pushed home upon the hostile front. The "Invincibles", by four o'clock in the day, were fleeing on all sides, and the whole Mahratta camp, guns, baggage, stores, and treasure of great value, were left, with thousands of dead, in the victor's possession. The battle of Laswari gave a peerage to Lake, and the possession of Upper Hindustan to Great Britain. At the close of 1803, Sindhia and the Raja of Nagpur sued for peace. The former gave up all claims to territory north of the Jumna and west of the Chambal; the latter yielded Cuttack, Orissa, and Berar, the last territory being presented by Lord Wellesley to the Nizam of Haidarabad. The Gaekwar of Baroda recognized the triumphs of the Governor-General's arms by becoming a feudatory on the subsidiary system.

It thus appears that, by 1804, of the seven native princes hostile to British influence, the Nizam was won over, Tippoo was dead, the Peishwa and the Gaekwar had become feudatory to and dependent on the British rulers, Sindhia and the Raja of Nagpur had been overcome. The predatory Mahratta chieftain, Holkar

of Indore, alone remained. This man, an illegitimate son of the late ruler, was an usurper of power from the legitimate branch of the Holkar family, and his character was that of a free-lance of the old Mahratta type, whose home was in the saddle, and who thought far more of plunder than of political power, and of his loose bands of horsemen than of regular, trained bodies of foot. During British warfare in the Deccan and in upper Hindustan, Holkar was making a rich booty in Rajputana and Malwa, where he was joined by thousands of deserters or fugitives from the armies dispersed by Wellesley, Stevenson, and Lake. His arrogant demand that the British government should recognize his right to the Mahratta *chout* (chaut) or blackmail, amounting to one-fourth of the land-revenue, from states under our protection, caused Lord Wellesley to resolve on his subjugation, and Lord Lake was ordered, early in 1804, to take the field. The operations which ensued resulted, at some points, in utter failure which for a brief space cast a shade on the glory of the Governor-General and the British arms. Colonel Monson, invading Holkar's territory with an insufficient force, was a brave and capable man, but, assailed by the treachery of native allies in his own camp, attacked by Holkar with a great host, and overtaken by the terrible downpour of the rainy season, he was forced, in a disastrous retreat, to take refuge at last, with the remains of his brigade, within the walls of Agra. Lord Lake, rashly attacking Bhurtpore without any proper siege-train for making an effective breach, suffered five repulses of separate assaults between January and April, 1805. The walls of hardened mud were of colossal height, thickness, and strength, making the fortress one of the strongest in all India. On the other hand, Holkar was repulsed, in an attack on Delhi, by Colonel (afterwards General Sir David) Ochterlony; the fortress of Deeg was taken from the Raja of Bhurtpore; and Lake, with his cavalry, scattered the Mahratta horse in the open country. In the end, the Raja of Bhurtpore was again brought under the British protectorate on payment of a heavy fine, and further defeats of Holkar drew back to allegiance Sindhia, who had espoused his cause. At this juncture, Lord Wellesley, who had disquieted the Court of Directors in London by the very magnitude of his extensions of British power, and by the expenditure due to his operations, was superseded by Lord

Cornwallis, former Governor-general. Wellesley, a statesman of a very high order, styled a "glorious little man" by his friends, from his small stature, his great achievements, and his strength of will, was one of the main founders of British imperial rule in India. He impaired the Mahratta power in the land, made British sway unbroken on the eastern coast from Calcutta to Cape Comorin, and settled the partition of northern India between British and native rule which continued until the Sikh wars nearly half a century later. It was he who first clearly saw that, for British interests of every kind, the trade-theory must be exchanged for a view of sovereignty which, declining to think of a balance of power between British and native rulers, sought solid peace and security in making our influence and sway paramount throughout the whole vast region in which the commercial Company had caused us to become so deeply engaged. He understood that the civil servants of the Company must henceforth have something beyond a mercantile training in order to act efficiently as magistrates, rulers of provinces, and ambassadors, and, in this view, he founded at Calcutta, for the special education of young civilians fresh from Europe, the great college where a staff of professors should give instruction in history, law, political economy, and the chief languages of modern India. His plans caused the Company, in 1809, to erect Haileybury College, near Hertford, as a place of training for cadets in their service. The teachers at that institution included men so famous as Malthus, Sir James Mackintosh, and Sir M. Monier-Williams; the students furnished India with great administrators in Lord Lawrence, Sir Charles Trevelyan, and Sir Bartle Frere.

The arrival of Lord Cornwallis was the sign of reaction, for a time, in the Court of Directors and the Board of Control. A policy of isolation and neutrality was to supersede that of protective and subsidiary alliances, and, with great ignorance of the Oriental mind, native rulers were to be "conciliated" by restoring territories subdued, and fortresses captured, by British arms. Lord Cornwallis, landing in Calcutta at the end of July, in the most unhealthy season, did not live to give any effect to the new plan of rule. Traveling up country to the north-west, he died on October 5th, 1805, at Ghazipur, on the Ganges near Benares, and was succeeded by Sir George Barlow, one of the Company's civil servants, as

temporary ruler. He had, as a member of Council under Wellesley, always supported his imperial policy, but he was now compelled to carry out the views of his superiors in London. At the end of 1805, Holkar had been pursued by Lord Lake into the Punjab, and a peace was now patched up with the Mahratta chieftain by a restoration of all his occupied territories and captured fortresses. This weakness at once caused him to resume his plundering, and our government, furthermore, annulled our protective treaties with the princes of Rajputana, and abandoned them to the rapacity of Holkar. That unscrupulous and turbulent personage, however, observed his pledge to abstain from attacking the territory of the British and their allies. A sinister event occurred in July, 1806, at Vellore, near Arcot, when a body of Madras sepoy, 1500 strong, rose by night and attacked the barracks of European troops, containing 400 men, with the slaughter of half their number and of thirteen British officers. This outrage was instigated and supported by the family of Tippoo, there detained in honourable captivity. The outbreak was promptly suppressed, with great carnage of the mutineers, by British dragoons and guns from Arcot. Inquiry proved that the sepoy had been irritated by orders forbidding them to appear on parade with ear-rings or caste-marks, and requiring them to shave off their beards, lessen their moustaches, and exchange the turban for a covering like the obnoxious European hat. The rumour had spread that these innovations were preliminary to an attempt to force them into a profession of Christianity. The circumstances, in some points, much resemble those of the great mutiny over half a century later. As a consequence, the commander-in-chief of the Madras army, Sir John Craddock, and Lord William Bentinck, Governor of the Presidency, whom we shall meet hereafter as Governor-General, were recalled from their high and responsible positions.

In 1807 Lord Minto reached Calcutta as the new Governor-General. This able and energetic man, born at Edinburgh in 1751, had been in the House of Commons, as Sir Gilbert Elliot, for many years, first as a supporter of Lord North, and then as a Whig follower of Fox and Burke. It is curious to find that in 1795 he held the post of "Viceroy of Corsica", when Great Britain sought to aid Paoli in his vain attempt to win the island's independence of France. During his six years' tenure of power

in India, from 1807 to 1813, Lord Minto showed his skill in maintaining, according to his instructions, the policy of non-intervention without any further sacrifice of British influence and interests in the East. The Mahrattas were held in check to a certain degree, without risk of war. Work of real value was effected in the seizure of Mauritius in 1810, and the Governor-General in person accompanied the expedition which, in 1811, took the Dutch colony of Java out of the hands of its French conquerors. It was in his time that British India began to have a foreign policy in Asia, and that envoys were despatched to negotiate with the rulers of Persia, Afghanistan, and the Punjab, mainly with the view of counteracting supposed schemes of French invasion. Diplomats trained in the school of Wellesley were thus employed, and in one instance at least, with excellent effect. Colonel Malcolm, afterwards Sir John Malcolm, an able, energetic native of Dumfriesshire, soldier, statesman, and historian in one, went in 1807 to the Persian court. The famous and accomplished Mountstuart Elphinstone, who rode at Arthur Wellesley's side on the great day of Assaye, and became the able and beneficent administrator of the Bombay Presidency, was another Scot, younger son of General Lord Elphinstone, eleventh baron in the Scottish peerage, whose ancestors, the first and second barons, fell on the fatal fields of Flodden and Pinkie. Elphinstone, in 1809, when he was only in his thirtieth year, met at Peshawar Shah Shuja of Afghanistan, whom we shall see again in the course of our narrative. The successful mission was that of young Charles Metcalfe, who was sent up to Lahore, and concluded with the famous Ranjit Singh, founder of the Sikh monarchy, a treaty of friendship which that powerful ruler faithfully observed until his death more than thirty years later. The diplomatist on this occasion became successively acting Governor-General of India, Governor of Jamaica, and Governor-General of Canada, dying as Lord Metcalfe, and justly eulogized by Macaulay in his epitaph for his fortitude, wisdom, probity, and moderation in ruling "men of many races, languages, and religions".

During Lord Minto's term of office, the Court of Directors and the Board of Control began to find out the failure of neutrality and abstention in native affairs, especially as regarded Central India, where the Mahratta rulers of Nagpur, Gwalior, and Indore

MAHRATTA FREEBOOTERS ON A RAIDING EXPEDITION.

The present peaceful condition of Central India stands out in marked contrast to the state of turmoil and rapine which obtained in the early years of this century. At that time the Mahratta rulers of Nagpur, Gwalior, and Indore were beginning to hope that they might yet be freed from the rule of the hated British, and meanwhile they encouraged all attacks directed against the weak states under British protection. Organized raids were made upon the hapless inhabitants by bodies of banditti, who attached themselves to the Mahratta chieftains during war, and lived by pillage in time of peace. Mounted on swift horses and provided with little baggage these freebooters swooped down upon quiet villages, where they wantonly destroyed what they could not remove, after slaying the men and maltreating the women. Gradually, however, this lawlessness disappeared before the strong and just rule of Great Britain.



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kept up a constant turmoil of rapine on their weaker neighbours who were not under express British protection, and were even beginning to hope for the expulsion of the hated Europeans and the resumption of their olden state of independence. Another grievous element of trouble existed in the swarms of freebooters known as Pindaris and Pathans, organized bodies of banditti, men of no country and under no responsible rulers, who were the terror of all men living by the arts of peace. The Pindaris were originally Hindu outlaws who attached themselves to various Mahratta chieftains during their wars with the British government, and, on the return of peace, lived by devastation carried from Mysore to the Jumna. Lightly provided with baggage, mounted on swift and hardy steeds, recruited from villains of every class and region in the land, they swooped down, like hordes of ravenous birds or locusts, on the ripe crops of the husbandmen, cleared the ground, plundered the villages of all portable objects of value, wantonly destroyed what they could not remove, slew resisting men, and brutally maltreated women. The Pathans included the best native infantry not commanded by European officers, as well as cavalry and an efficient force of guns, and they were a more regular and disciplined force than the Pindaris. On leaving his post in 1813 Lord Minto called the special attention of the Court in Leadenhall Street to the necessity for dealing promptly with the terrible mischief that was filling central India with mourning, desolation, misery, and woe.

The year 1813 is another epoch in the history of the East India Company. A momentous change was now made in their commercial position. Their charter expired, and, before renewal, a Committee of the House of Commons made an inquiry into the condition of Indian affairs. The occasion was made interesting to the British public by the emergence from his long retirement at Daylesford of the illustrious Warren Hastings. Summoned to appear, during the Parliamentary debates on our East Indian possessions, among witnesses at the bar of the Commons, the aged statesman, then in his eighty-first year, was received with tokens of the utmost respect by some of the foremost men of a generation which, forgetting the charges once levelled against a historical personage, remembered only his great services in the extension and consolidation of British power in a distant region of

the world. The Company's charter was renewed by Parliament for twenty years, with a serious lessening of the old monopoly. The trade to India was thrown open to all British subjects, and the commercial and territorial branches of the Company's affairs were henceforth separate. The trade to China still remained in their hands. It has been observed by Sir J. R. Seeley, in his valuable *Expansion of England*, that, whereas the renewal of the charter in 1793 took place at a time when India was regarded by Anglo-Indians "as a kind of inviolate paradise, into which no European and especially no missionary should be suffered to penetrate", the year 1813 marks the time when "England prepares to pour the civilization, Christianity, and science of the West into India".

At this important period of Indian history we have the arrival, in 1814, of the Earl of Moira, afterwards Marquis of Hastings, as Governor-General. This eminent man, born in 1754, was the eldest son of Lord Rawdon, Earl of Moira, an Irish peer descended from one of the Conqueror's warriors. On his mother's side, he came from the family of Baron Hastings of Ashby de la Zouch, in Leicestershire, who, after fighting on the Yorkist side at the decisive battles of Barnet and Tewkesbury and becoming a leading noble under Edward the Fourth, was put to death by Richard Duke of Gloucester for his unswerving fidelity to the hapless Edward the Fifth. Entering the army in 1771, Lord Rawdon took part in the American War, fighting at Bunker's Hill in June, 1775, when he displayed remarkable courage; serving with much ability and zeal in the southern States under Lord Cornwallis; and gaining the experience in warfare which was afterwards to be brought to bear against formidable foes in India. He quitted America, with broken health, in 1781, became a peer of Great Britain, as Baron Rawdon, in 1783, succeeded to the earldom of Moira, on his father's death, ten years later, and took an active part, with the Duke of York, against the French in Flanders. Lord Moira, showing no marked ability in political affairs, was distinguished in the House of Lords by the bold expression of decided opinions on Irish policy, condemning the recall of Lord Fitzwilliam, denouncing the cruelty exercised by the troops against the Irish patriots who were being driven to rebellion, and firmly supporting the cause of Catholic emancipation. In 1806, Moira became a member of the Privy Council, and held office in the brief

Fox and Grenville government. His friendship with the Prince Regent, whom he zealously served both in public and private matters, won for him a Knighthood of the Garter, and largely contributed to his selection for the high offices of Governor-General and Commander-in-chief in India, in which capacities he landed at Calcutta in October, 1813. We may as well state at once that the Marquisate of Hastings, in the peerage of the United Kingdom, was conferred on him in 1816, for his public services in his new sphere of action. His tall, athletic, stately person, with a dignified and impressive demeanour, were accompanied by features which caused some to pronounce him "the ugliest man in England", but the whole effect of his bearing and expression of face was such as to make him a favourite subject of the most famous painters of his time, a fact which has given to posterity many portraits of the man from the brushes of Reynolds, Gainsborough, and Lawrence.

The new ruler, as has been shown above, found abundant work ready to his hand, and was speedily converted from his previous attitude of opposition to the policy pursued by Lord Wellesley. The Gurkhas (Ghoorkas) of Nipal (Nepaul), of Hindu stock, had become the ruling race in that mountainous region towards the end of the eighteenth century, and the inroads of this warlike people, with a feudal military organization and an army trained on the European system, soon made them formidable to neighbours on all sides save the north. Their encroachments on British territory, and their refusal of redress, caused an outbreak of war in 1814. The enemy were strong in the swamps and forests of the Tarai (Moist Land), or jungly malarious tract running along the foot of the first range of the Himalayas, and covering their frontier; in the steepness and intricacy of their mountainous territory; and in the activity and courage of the troops ably commanded by warriors of whom the most renowned was Amar Singh. Lord Moira arranged his attack on Nipal in four columns, composed in all of nearly 25,000 men, including 3000 British, with over 60 guns, and directed on points between hills above the Sutlej on the west and the capital, Khatmandu, on the east. The operations of the first campaign were at some places unsuccessful for the invading force. Officers and men alike were new to mountain-warfare; the country was unknown; every pass was fortified, and every defensive position was skilfully used by their opponents. General Gillespie and 500

men fell in a rash attack upon a hill-fort from which the foe might have been at first, and, a month later, were actually driven with ease by shell-fire. Two assaults upon another stronghold were repulsed with great loss. These failures on the west were repeated in the east, where two detachments, each of 500 men, were destroyed, and the generals in command could not, or would not, daunted by their first mishaps, make vigorous efforts to retrieve affairs. The news spread fast and far. The Mahratta princes exulted in British defeats, and, believing that the day of vengeance and redress was dawning for their cause, they were planning a combined attack from Central India upon our possessions. Lord Hastings, watching and directing the Nipal war from Lucknow, was obliged, at the same time, to have some thousands of men, horse and foot, in readiness to meet a threatened invasion of the Pathan chief, Amir Khan, who lay in camp, with a powerful army, but a few marches from Delhi. It was needful also to be prepared against the Pindaris, and to have troops in hand to check a possible attack from Sindhia of Gwalior, who was within easy striking distance from the Doab, Agra, and Delhi. The strong mind and stout heart of the Governor-General were fully equal to the needs of this critical time, and, raising new forces among the Rohillas, he launched them against the Nipalese province of Kumaun, in order to make a diversion and draw off the enemy from the flanks to the centre of their kingdom. After the defeat of one body of Rohillas by the Gurkhas, the new attack completely succeeded. In April, the enemy were twice overcome, with the loss of their commander; the capital of Kumaun, Almora, was surrendered in view of a bombardment at close quarters, and the whole province was given up by a convention with the new Gurkha general. The hero of the Nipalese war was General David Ochterlony, a veteran soldier of Scottish descent, born at Boston, Massachusetts, in 1758. Reaching India as a cadet in 1776, he fought under Sir Eyre Coote against Hyder Ali in the Carnatic, and in 1804 held Delhi against Holkar. He now won enduring fame in the lower Himalayas. In the winter of 1814, leading the western attack, near the Sutlej, against the Gurkha general Amar Singh, he operated with a rare combination of daring and caution, amid snow-storms and mountain blasts, taking his men and heavy guns along narrow shelves of rock overhanging deep precipices, forcing his way against nature's

obstacles by blasting rocks, and carrying fort after fort by storm during a brilliant and most arduous campaign of five months' duration. On April 16th, 1815, a desperate attack of the enemy was repulsed, and on May 15th the strong fortress of Malaun, already breached by the British cannon, was surrendered by Amar Singh. The Nipalese government sued for peace, and the whole of Nipal to the west of the Kali river, a territory above 200 miles in length, was given up. The province of Kumaun was retained for British administration; the rest of the conquered country was restored to native rulers, from whom it had been taken by the Gurkhas, with the condition of British control in case of internal disorder or troubles from any foreign source. Three battalions of the brave and active Gurkhas were formed from troops who, under the convention, had been disbanded and were then allowed to enter our service. The Nipalese war, however, was not yet over. During the summer of 1815 negotiations for a settlement were in progress, and disputes arose concerning the cession of portions of the Tarai. At the end of the year, the war party in Nipal, after a draft-treaty had been signed, renewed the struggle, and Ochterlony advanced from Patna into the enemy's territory on the eastern side, towards the capital, Khatmandu. In February, 1816, 20,000 men, including three British regiments, marching through mountain-gorges and dark forests with a thick undergrowth of bush, and struggling up rough and steep ascents, made their way to the rear of the enemy's triple line of strong intrenchments. The Gurkhas, surprised by this skilful movement, and taken in rear, hurried away northwards without offering to fight, and, after two sharp defeats within a few miles of Khatmandu, the Nipalese court was glad to give a full and final assent to the once-rejected Treaty of Segauli. A further cession of territory, up to the river Rapti, was made, and the frontier then arranged secured lasting peace with the state of Nipal. The Gurkhas in the British service have proved themselves, in many a battle, to be equal to the best native soldiers. The mountain districts gained by the war afforded sites for the future valuable sanitary hill-stations of Simla, Masuri (Massooree), and Naini Tal. The gallant Ochterlony, already a Knight Commander of the Bath, received a baronetcy as a further reward for his chief share in the issue of the war.

Lord Hastings next turned his arms against the hateful hordes

of Pindaris who, during his contest with Nipal, had been making raids in the Madras Presidency. Instructions from both the Cabinet and the Court of Directors authorized him to employ the most vigorous measures, and he resolved to make a speedy end of what had become an unendurable nuisance and peril. Ample preparations were made, in view of contingent war with the Mahrattas, and the Governor-General took the field, in October, 1817, with the greatest army which had ever yet been ranked under our colours in India. The work that lay before him was really nothing less than a complete change in the conditions of existence for Central India, where chronic anarchy had come from the circumstances and conduct of native princes who acknowledged no duties, and regarded no rights; who were striving with each other for personal power, with division in their own councils, rebellion amongst their tributaries, and a mutinous spirit in the armies whose pay was ever in arrears. Society over a vast region was threatened with utter dissolution and ruin, and nothing could save it but the establishment of an imperial European sway which could overawe all spirit of resistance, and create a new condition of political and social affairs under which, with absolute supremacy for public law and due regard for international obligations, the weak should be guarded from all wrong-doing, and respect for legitimate rights be enforced on every side. It was estimated that the native states and the freebooters, in Central India, if they were combined against the British government, could put into the field above 120,000 horse, nearly 90,000 foot, and about 600 guns. In this view, Lord Hastings provided 120,000 men and 300 guns, the northern section of which army, under his own immediate orders, consisted of about 30,000 infantry, 14,000 cavalry, and 140 guns. The reserve-division of this force, under Sir David Ochterlony, was so placed as to cover Delhi and Rajputana. The southern army, in six divisions, included 52,000 infantry, 18,000 cavalry, and 160 guns. The British troops in the whole great host numbered 13,000 men, of whom 8,500 were infantry, 2000 cavalry, and the rest artillery. Sindhia, like the other Mahratta princes, was in more or less secret league with the Pindaris, but he was overawed by Lord Hastings' demonstrations, and was compelled to furnish a contingent to aid in the extirpation of his friends. It is impossible to give here the details of the skilful and complicated

operations by which the Pindaris were finally overwhelmed and reduced to a helpless state. Surrounded on all sides, assailed in every quarter by hostile columns, driven hither and thither, they were practically annihilated, and, as a body of men capable of mischief, they vanished early in 1818 from the Indian world.

The resolve to exterminate the Pindaris had at once committed Lord Hastings to the struggle known as the Third Mahratta War. The Peshwa (Baji Rao), the Raja of Nagpur, and Holkar of Indore, with Sindhia and the Gaekwar of Baroda, were all hostile to the Governor-General's movement of interference in Central India. Mr. Elphinstone, the British Resident at Poona, was forced to retire to Kirki, 3 miles from the town, where a brigade of nearly 3000 men was stationed. The Peshwa then headed his troops in an attack on the Residency, which was plundered and fired with the loss of Elphinstone's books, journals, and letters. A battle took place between the British force and ten times the number of Mahrattas, ending in the retirement of the enemy to Poona. Reinforcements from the northern army of the Deccan then arrived, and the Mahratta forces fled to the south, leaving Poona to be occupied by our troops. The battle of Kirki, not important in a military sense, had great political results. A strong impression was made on the minds of the people, and belief in our power was fully restored. The hill-forts of the Peshwa were reduced, and he was driven about the land, while the southern portion of his dominions was conquered by a small force from Madras under the command of the skilful soldier and accomplished statesman Colonel Thomas Munro. With less than 600 men, including very few Europeans, he boldly went forward, captured nine forts, and, with reinforcements, reduced the whole country to obedience and tranquillity. In June, 1818, the Peshwa surrendered to Sir John Malcolm, and was formally dethroned, being pensioned off into captivity at Bithur, near Cawnpur. His adopted son was the infamous Nana Sahib of the Sepoy Mutiny days. His dominions were all annexed to the Bombay Presidency, which was thus enlarged almost to its existing size, and was ably organized and administered by Mountstuart Elphinstone as Governor from 1819 to 1827. His chief titles to fame consist in his codification of the law, the liberal admission of natives to a share in the duties of government, and his encouragement of

education among the people. The Elphinstone College at Bombay commemorates his enlightened efforts, opposed both by his own Council and by the Court of Directors, on behalf of a sound training for young civilians, including native officials. The primary education of the natives was also a matter in which his enlightenment and zeal were far in advance of his age.

Turning next to the Raja of Nagpur, we find that ill-advised ruler, a typical Mahratta prince, seeking to shake off British control, and attacking the Resident. On the Sitabaldi hills, the Raja's army of nearly 20,000 men was disgracefully repulsed, after a desperate fight, by a British force of 1400, and the arrival of reinforcements made the Raja helpless after a battle ending in the rout and dispersal of his Mahrattas with the loss of all their guns, elephants, and stores. The ruler of Nagpur was then reduced to the position of a nominal sovereign, with the cession of territory near the river Narbada (Nerbudda), ruling through ministers chosen by the British Resident, and with a British force as the garrison of his capital. About the same time, at the close of 1817, prompt measures were taken against Holkar, the ruler of Indore. We have seen that Sindhia was held in check by the display of overwhelming force, and the Pathan forces under Amir Khan were disarmed, early in 1818, by Sir David Ochterlony. On December 21st, 1817, Holkar's army of Mahrattas was defeated by Sir John Malcolm in the decisive battle of Mehidpur (Maheidpoor), northwest of his capital, Indore, with the loss of 3000 men, his camp, military stores, and 70 cannon. In January, 1818, Holkar made a treaty by which he became a ruler on the "subsidiary" basis, and his state ceased henceforth to be a source of trouble to British rule. The nucleus of the present "Central Provinces" was created in the region which had been delivered from the ravages of the Pindaris. The Governor-General had not yet, however, done with the Raja of Nagpur. That restless and treacherous personage, in defiance of the recent arrangement, sought to throw off British control, and was deposed, in the spring of 1818, in favour of an infant successor.

The last military event of the last Mahratta war was the reduction, in April, 1819, of the strong fortress of Asirgarh (Aseerghur). Resistance in every other quarter had ceased, and the settlement of British rule was then made which continued for nearly thirty

years, until the time of the next conquering and annexing Governor-General, Lord Dalhousie. A vast territory, amounting to nearly half a million square miles, was to be re-constructed on such terms as to secure peace and beneficial rule for many millions of natives who had suffered so long and so grievously from the Pindaris and the Mahrattas. The whole of India, as far as the Sutlej, was brought under the control of the government at Calcutta, by an extension of British power due to the broad policy, the strong and sagacious intellect, and the skilful military measures of Lord Hastings, supported by the ability and energy of some of the most admirable instruments, in both military and civil work, ever employed by a Governor-General in India. Great Britain had become, in fact, though not in form, supreme suzerain of the whole country, and the measures for the re-settlement of Central India and the Deccan were intrusted to the hands of the men who had assisted in the great increase of British dominion—Malcolm, Munro, Ochterlony, Metcalfe, and Mountstuart Elphinstone. In all the native states now made subject to British control, foreign and military affairs came henceforth under the authority of the government at Calcutta, the internal administration being left in native hands, under the eye of a British Resident or Agent, supported by a subsidiary force maintained by the revenues of territory taken over for that purpose into our direct administration. Native rulers who had rendered good service during the war, or who showed a desire to further the cause of wholesome reforms, received accessions of territory from the lands of chiefs who had been wholly or in part deprived of their dominions for hostility or misrule. The Nawab of Bhopal was thus rewarded. The pacification of Rajputana, which had greatly suffered from the predatory work of the Pindaris and Pathans, was assigned first to Metcalfe, and then to Ochterlony. The good effected by the British arms is amply proved in one of Sir David's reports to the government, wherein he mentions the eloquent expressions of gratitude to the British rulers of India which, in the course of an official tour, he received from men of every class. A firm basis of our power was being laid when, in addition to the spread of a feeling that British supremacy was an event which was not to be resisted, the discovery was daily made that British rule was just and satisfactory, that native customs were respected and maintained, and that the Governor-General was the defender

of the helpless and the avenger of wrong. The owners of property of every kind found that, while they had been always exposed to the cupidity of native sovereigns, British rule meant absolute security for every lawful possessor. In spite of all native prejudice against European modes of thought and action, the example set by British civilians in power, succeeding the rapid and decisive success of British arms, could not but encourage many native rulers in the direction of reform. In 1820, Sindhia made an alliance with our government on what was, practically, the subsidiary system, and, thus protected, was enabled to effect useful changes in the methods of ruling his dominions. The Deccan was settled, during 1818 and the following year, under the strong and enlightened administration of Elphinstone, who preserved, in his legal reforms, the main features of the native system, with a removal of the abuses which had arisen.

Amongst the other work of Lord Hastings may be mentioned the destruction of piracy in the Persian Gulf and in the Arabian Sea as far as the western shores of India. The territory of Cutch was subdued and incorporated in our dominions in 1822, in consequence of raids made from that disordered territory into lands under British protection. In Bengal and the two other Presidencies some beneficial changes were made in the criminal and police systems, and in the Madras Presidency, under Sir Thomas Munro, who became Governor in 1820, the land-system was introduced under which the cultivators of the soil paid revenue direct to the government without the intervention of either a *zamindar*, or landed proprietor liable for the tax, or of the "village community" whose representatives assessed each peasant for his proper share, subject to an appeal in the courts. The finances of India, under the rule of Lord Hastings, were so flourishing that, notwithstanding the cost of two wars of the first importance, the surplus grew, after providing for the public debt, from about two millions in 1813-14 to nearly 3½ millions in 1822-23, and the government bonds, at 12 per cent discount in 1813, were at a premium of 14 per cent ten years later. The enlightened views of this great ruler caused him to be a zealous promoter of the moral and intellectual improvement of the natives at a period when Anglo-Indians, in too many cases, believed that the spread of information tended to make them less submissive to authority. He removed some restrictions on the

freedom of the press, and reduced the rate of postage of newspapers. Disdaining to adopt the prejudices of his time, he freely admitted half-castes of good position, character, and service to the festivities of Government House at Calcutta. In the department of public works, his wonderful energy found scope in the repair and construction of roads, bridges, and canals, in the restoration of a gratuitous and abundant supply of pure water to the people of Delhi by the re-opening of a canal constructed by the Mughal rulers, and in the improvement of the city of Calcutta. The main achievements of the Marquis of Hastings in subduing disorderly elements, extending and consolidating British rule, and assuring British supremacy, as they have here been briefly described, were such as to win for him just and enduring fame.

After a period of power just exceeding nine years in duration, Lord Hastings left India on the first day of 1823. His successor not arriving until the following August, the post of acting Governor-General was filled by Mr. Adam, one of the Company's civil servants, whose action is remarkable for nothing but his somewhat tyrannical treatment of the newspaper-press. In 1818, a Mr. J. S. Buckingham had set up a journal at Calcutta, in which he published, from time to time, some sharp criticisms on government officials. At this time, and until the year 1833, no European was allowed to reside in India except as a servant of the Company or by express permission of the Court of Directors. With this power in his hands, Mr. Adam expelled Mr. Buckingham, and passed beyond the reach of further human censure by being lost at sea during his return voyage to England. The new Indian ruler was Lord (afterwards Earl) Amherst, who served as Governor-General from 1823 to 1828. William Pitt Amherst, born in 1773, was nephew of the General Lord Amherst whom we have seen as commander-in-chief against the French in Canada. Succeeding his uncle in the barony on his death in 1797, Amherst went, as we have seen, ambassador to China in 1816, where he utterly, and much to his credit, failed through declining to submit to Chinese insolence and self-conceit. The administration of Lord Amherst included the first Burmese War, which is elsewhere described. He is favourably known for his grant of a large measure of freedom to the newspaper-press. In 1799, Lord Wellesley had established a censorship prior to publication, with the penalty of summary deporta-

tion to Europe. The new regulations of Lord Hastings, issued in 1818, gave up the censorship, but prohibited all discussion and criticism which might stir the native mind on religious or political affairs, the conductors of newspapers being watched and warned by a special court. The change introduced by Amherst proved to be both safe and beneficial. In January, 1827, an important military success in Rajputana wiped away a reproach which had for twenty-two years attached to the British arms in a well-founded belief of the native mind that for our commanders the words "impossible" and "impregnable" had, in one case, a practical meaning. The Raja of Bhurtpore, a state which, on the frontier near Agra, had been a "protected" ally of the Calcutta government since the time of Lord Wellesley, died in 1825, when the rule was usurped by a cousin of the lawful successor, a lad of seven. His uncle and guardian was put to death, and the little prince, fully recognized by the British ruler, was made a prisoner. So gross an outrage and insult demanded instant notice and redress. Sir David Ochterlony, the Resident at Delhi, and Agent for Rajputana, ordered a body of troops, on his own authority, to advance and assert the rights of the infant Raja. Lord Amherst, with an error of judgment that had a painful issue for the famous soldier-statesman Ochterlony, countermanded this order, from a doubt as to his right of interference, mingled with respect for the strength of the clay-walled fortress which had, in 1805, repulsed all the assaults of Lord Lake. Sir David Ochterlony, now in his sixty-seventh year, resigned his office in indignation, and died at Meerut, two months later, in July 1825. The timidity of the Governor-General caused the usurper at once to assume a defiant attitude, and to announce his fixed resolution to keep the throne and to maintain the fortress against all comers. Central India, as Ochterlony had foreseen, began to stir, and Mahrattas, Pindaris, Rajputs, and lawless adventurers from many quarters streamed to Bhurtpore. Lord Amherst recognized his mistake, and, backed by a council eager for war in such a cause, gathered an army under the command of Lord Combermere, who, as the famous cavalry-leader, Sir Stapleton Cotton, had taken part in some of the greatest battles of the Peninsular War, earning a barony in 1814, and being now commander of the forces in India. It was essential that no failure should now occur, and Combermere marched for Bhurtpore at the head of 25,000 men provided with an

ample train of siege-artillery. Such were again found to be the strength and thickness of the walls that the heaviest guns then used made no effective breach. On December 23rd, 1826, mining was begun near an angle of the ramparts, and on January 17th, the explosion of ten thousand pounds of powder blew away masses of hardened clay, leaving a gap through which our storming-columns passed with an irresistible rush, and in two hours cleared the works of all opponents. The young Raja was restored, and the usurper became a state-prisoner. The only other noteworthy incident of Lord Amherst's period is his establishment, at Simla, of a vice-regal residence for use during the hot season when health demands a retirement to the hills.

CHAPTER IV.

BRITISH POSSESSIONS IN ASIA (*continued*). INDIA: HISTORY FROM 1828 TO 1844.

Lord William Bentinck Governor-General—His beneficent rule—Suppression of Suttee and Thuggee—Renewal of the Company's charter in 1833—Thomas Babington Macaulay appointed law-member of the Supreme Council—His Penal Code—Misrule and oppression in the native states—Condition of Oudh—Coorg seeks annexation—Revolt in Mysore—Able administration of Sir Charles Metcalfe—Lord Auckland appointed Governor-General—The Afghan war—Shah Shuja restored—Revolt of Akbar Khan—Weakness of the British officials—The retreat from Kabul—Destruction of the army—Sale's gallant defence of Jellalabad—Lord Ellenborough succeeds Lord Auckland—Kabul recaptured—Conquest of Sind—Sir Charles James Napier—Battle of Meeanee—Troubles in Gwalior.

The period of sixteen years now brought under review is mainly one of non-intervention and of economic and social reforms, though it also includes two episodes, one marked by disaster, the other by success, in the shape of wars due to a deliberate departure from the policy of attending to our own affairs in India, and of seeking no extension of the frontier of our rule. In 1828, Lord Amherst was succeeded as Governor-General by Lord William Bentinck, whom we have seen as Governor of Madras early in the century. During the interval, from 1808 to 1814, he served in the Peninsula and in Italy against the French. He was the lineal descendant of William Bentinck, first Earl of Portland, favourite and friend of William the Third, and was second son of the third Duke of Portland, twice

prime-minister for brief periods. He had hitherto won little distinction in either a civil or a military capacity. He now arrived in India to make his name one of lasting remembrance, not as a ruler whose armies won victory over native forces or widened the bounds of British dominion, but as the pioneer of reforms which, conceived and carried out in a spirit of benevolent concern for the good of a subject people, caused the native mind to regard our sway in a new light. The inscription, from the pen of his friend Macaulay, placed on the statue erected at Calcutta, describes in stately words the seven years' work of a man who "infused into Oriental despotism the spirit of British freedom: who never forgot that the end of government is the happiness of the governed: who abolished cruel rites, gave liberty to the expression of public opinion, and made it his constant study to elevate the intellectual and moral character of the nations committed to his charge", and who thereby won from men "differing in race, in manners, in language, and in religion, veneration and gratitude for his wise, upright, and paternal administration".

After restoring the financial balance by reductions of permanent expenditure, by increasing the land-revenue in more careful assessment, and by the imposition of an opium-duty in a large part of the Central Indian territory lately brought under British sway, the new Governor-General turned his attention to abuses whose existence was an outrage upon humanity and civilization. The word *sati* (suttee), from the Sanskrit term meaning "an excellent wife", describes the usage by which, in certain families and castes, widows died by burning on the funeral-pyre that consumed a husband's body. This cruel custom had no connection with pure Brahmanism. The pretence of sanction in the *Vedas* has been exposed by modern scholarship, proving the passages on which it was based to be garbled, misquoted, or non-existent in those sacred writings. The laws of Manu have no word enjoining such an act of self-sacrifice. The practice, however, existed some centuries before the Christian era, and public opinion left to widows of a certain social standing scarcely any choice concerning their fate. The emperor Akbar forbade, but could not suppress *sati*, and British rulers had hitherto, in deference to native prejudice, abstained from interference with a "religious" rite. In 1823, nearly 600 widows were burned in the Bengal Presidency. In the face of strong opposition, from natives

and from many of his own subordinates and other European residents, Lord William Bentinck, in December, 1829, with the support of a majority in his Council, carried a Regulation which applied the penalties of "culpable homicide" to all persons aiding and abetting suttee. Authority soon acted with powerful effect upon the prevalence of a usage which, sanctioned by superstition and by continuance through many ages of time, was still repulsive to all humane feeling. This bold step of Bentinck's formed an epoch in British administration. His successors in the highest Indian office could not retrograde from the position which he had assumed. A new political duty was laid upon them, and in treaties between the imperial government and the native states it was officially proclaimed that this and some other Eastern customs were past endurance. The urging of this view upon native rulers at last created the principle that British protective alliance implies the cessation of inhuman practices lying under the ban of civilization. The cases of suttee, even in native territory beyond our direct control, are now very rare, and the practice may be regarded as extinct. The horrible assassins and thieves called Thugs (*Thags*) were also, to a large degree, extirpated by the vigorous measures of the Governor-General. We have seen, in the account given of modern Hinduism, the goddess Kali, wife of Siva, as a deity of fearful character and form, delighting in cruelty and bloodshed. It was in her honour that a secret society, existing from early Mohammedan times in India, practised the form of murder called Thuggee (*Thagi*). The word comes from *thaga*, "to deceive", and describes the method adopted against victims. Roaming the country in small bodies, disguised as innocent traders or pilgrims, the Thugs lured people who were met or overtaken in travel, into the intercourse of wayside repose which gave them the opportunity of strangling with a swift and sudden noose, or of poisoning by the powerful narcotic obtained from the *datura* or thorn-apple. Thousands of persons yearly died by the hands of these professional and pious assassins, until Bentinck and Captain Sleeman took up the war against them. Accomplices were enticed into becoming informers, and the gangs of stranglers were, in a few years, broken up by the apprehension of above 1550, of whom nearly 400 were hanged, and the remainder sent to life-long imprisonment or exile. The other services of Lord William Bentinck include reforms of

the judicial system; the introduction of village revenue-settlement into the north-west provinces; a largely extended employment of natives in the public service; and the zealous promotion of British education among the people.

In 1833, the Company's Charter was renewed for twenty years, and the Renewal-Act brought some important changes. The Company's monopoly of trade ceased to exist by the opening of free commerce with China. Creed, caste, and race were no longer to be obstacles to the nomination of any native for administrative office. A new Law-member was added to the Supreme Council at Calcutta. This official was to be chosen from among persons who were not servants of the Company, and was to be present only at meetings for making Laws and Regulations. Subject to the approval of the Court of Directors, these ordinances of the Governor-General and Council were to have the authority of Parliamentary statutes. The powers of the Governor-General and Council were now enlarged in the grant of a control over the other two Presidencies in all matters that concerned military or civil administration, and it is from this point of view that Lord William Bentinck has been, by some persons, regarded as the first real "Governor-General of India". The new Law-member of Council, who landed at Madras in June, 1834, was none other than Thomas Babington Macaulay, already famous as a Parliamentary orator and essayist, now destined to do work which has gained for him enduring renown as a jurist. As President of the Commission appointed, under the Charter Act, to inquire into "the Jurisprudence and Jurisdiction of our Eastern Empire", he had the chief share in drawing up a Criminal Code for the whole Indian Empire which, in his own words, was framed on the "two great principles of suppressing crime with the smallest possible amount of suffering, and of ascertaining truth at the smallest possible cost of time and money". Conciseness and perspicuity were to be specially aimed at in the new code. These principles, applied with consummate skill, produced, in the course of 1837, the famous Penal Code which, in the form of a pocket edition, is carried about by Indian civilians intrusted with the administration of justice. When Macaulay left India in 1838, his daring and original work was only in the form of a draft laid before the Governor-General and Council. For more than twenty years, in troublous times, unpropitious to law-reform,

the Code received comments from successive Law-members of Council, and, being still substantially Macaulay's work, it was enacted in 1860, after the illustrious author's death, and came into operation on January 1st, 1862. Macaulay also, as President of the Committee of Public Instruction, had a large share in framing a scheme of education for the natives of India in European literature and science through the medium of the English rather than of the vernacular tongues. Before leaving the subject of civil changes in our Indian administration, we may note that by the Charter Act of 1833 Europeans were henceforth permitted to reside in India without any license from the Directors of the Company, and to acquire possession of land.

In regard to native states, Lord William Bentinck, like some of his successors, was often placed in a difficult and delicate position between his official duty of carrying out the policy of non-interference enjoined by superior authority in London, and his own humane desire to secure just and kindly treatment for all sorts and conditions of men. It was soon found that the principle of non-intervention in the internal administration of native rulers could not be strictly applied. Amidst the follies, crimes, and debaucheries of the palace, millions of industrious tillers of the soil, longing only for peace to do their daily work, and for a fair share of the fruits of the earth, were looking to the British Resident, as representative of the supreme authority in the whole vast peninsula, the British *Raj*, for redress or security against oppressive misrule. On his arrival in India, the Governor-General had found disorder rampant in the Rajputana states and in Malwa, and in pursuit of the experimental policy of non-interference, he allowed matters to run their course unchecked and unchanged by the interposition of British arms. In Gwalior, six years after the death of Sindhia in 1827, a civil war was stopped by Lord William Bentinck's recognition of the authority of the young Maharaja as against that of the queen-mother. In the same year, 1833, on the death of Holkar of Indore, a civil war due to a disputed succession arose, and the Governor-General, who might have settled the matter, at the outset, by taking a decided tone, was at last obliged to send a British force to place upon the throne the claimant whom he had already recognized. In the Rajput state of Jaipur, it was not until a British agent, Mr. Blake, had been murdered, in June, 1835, and his superior,

Major Alves, severely wounded, that effective intervention from Calcutta took place. A British officer was appointed to conduct the administration during the minority of an infant Maharaja placed on the throne by the British government, and the country was soon enjoying a period of peace and prosperity. In reference to Oudh, a state of sinister notoriety in later days, Lord William Bentinck was provoked to adopt a threatening tone. The condition of affairs was, to the last degree, scandalous and miserable. The *Talukdars*, or feudal landowners, were in an anarchical state as regarded the sovereign power; the *ryots*, or tenant-farmers, were cruelly oppressed; the soldiery were mutinous; the helpless king was sunk in debauchery. In 1831, the ruler of Oudh was menaced with deprivation of all share in administration, and, at a later date, the Court of Directors gave authority to the Governor-General to assume the rule of the unhappy country, but he was then about to quit India, and was obliged to be satisfied with another sharp warning. For many years more, Oudh remained a disgrace to India and a nuisance to all neighbouring territories. In two countries, Coorg and Mysore, the British government did assume full authority as the only remedy for hopeless misrule. The little state of Coorg, a mountainous region of forests, gorges, and heavy rains, with rich tillage in the fertile vales, and divided from its neighbours by thick jungle and very lofty hills, lies between Malabar and Mysore. The warlike, hardy, and athletic race inhabiting the country was composed, one-fourth of high-caste landowners, three-fourths of low-caste serfs or slaves. Hyder Ali and his son Tippu both vainly tried to conquer the brave mountaineers, who were staunch allies of the British in the wars that ended with the capture of Seringapatam. They then became willing vassals of the British government, paying no tribute save a yearly elephant as an acknowledgment of fealty. After many troubles due to two Rajas, one more or less insane, and the other a cold-blooded, crafty tyrant, a ruler came to the throne in 1820 who surpassed his predecessors in atrocious cruelties, and, on remonstrance, set the British government at defiance. A British force, in spite of a brave resistance from the people, brought the Raja to surrender, and the people of Coorg, bidden to choose a new ruler for themselves, as one man begged to be taken under the Company's dominion, with the stipulations that their Raja should be exiled for life, as, with his presence.

they felt bound to obey him, and that, in deference to their feeling as strict Hindus, no cows should be killed in their country. With both these concessions, Lord William Bentinck made the only annexation that occurred during his period of power. In Mysore, after the downfall of Tippu in 1799, a native infant ruler was set up under the watchful eye of an English Resident, but in 1811 the youthful Raja began to go wrong, and was soon in financial difficulties from the most lavish expenditure on vicious ways of life. On the non-intervention principle, the Resident could only advise, not threaten, and a solemn warning from Sir Thomas Munro, the Governor of Madras, was wholly unheeded. In 1830, the long-suffering people of Mysore rebelled, and the matter ended, after the suppression of revolt by a British force, with the removal of the Raja on an ample pension, and the assumption of rule by British officers under the Resident's general control. A few years later, the "Resident" became a "Commissioner", and the administration of the country, which soon had a prosperous and happy people, remained in British hands until 1881. These instances show something of the relations existing, during the period now dealt with, between the Calcutta government and native states.

On Lord William Bentinck's retirement in 1835, Sir Charles Metcalfe, whom we have seen as a young man, and who became one of the ablest and most experienced servants of the Company, was senior member of Council, and in that capacity he became provisional Governor-General. During his few months of office, ending in March 1836, he carried into full effect his predecessor's plans for the freedom of the British press in India. Henceforth, the Calcutta government had no power to dispose of hostile journalists by the simple process of expelling them from the country. It would have been well for Great Britain if Metcalfe had been appointed as Governor-General for a full period of rule, enabling him to continue the beneficial policy of Bentinck. The opinion of Anglo-Indians on the spot, and the expressed desire of the Directors in Leadenhall Street, were herein agreed. The appointment of Lord Auckland in the earlier part of 1836, by the Whig ministry of Lord Melbourne, was a striking instance of the evil of party-government when it is allowed to dictate the choice of persons for high and very responsible office not concerned with the internal administration of Great Britain. The new Governor-

General had no qualifications whatever for the post which he was assuming beyond the fact of being a Whig official who had steadfastly supported the Parliamentary reform which was effected in the Act of 1832. His term of office was marked by the greatest disaster and disgrace which have ever befallen the British arms in any quarter of the world. It is impossible here to give any detailed account of Afghan affairs from 1839 to 1842. The cause of war, the chief events, and the issue may be briefly told. We have seen how, at the beginning of the nineteenth century, a strong man, a man of genius, Lord Wellesley, during six years of rule, dealt with what we may call the "French scare". Lord Auckland, a weak man, became the victim of the "Russian scare". The strong and able ruler of Afghanistan, an usurper named Dost Mahommed Khan, held the throne once filled, as we have seen, by Shah Shuja, who was driven out in 1809, soon after his meeting with Elphinstone at Peshawar, and was now residing at Ludhiana, in the Punjab. Dost Mahommed, eager to recover Peshawar from Ranjit Singh, the ruler of the Punjab, sought help, in 1838, from the British government. When his advances were coldly treated, he turned to Russia, received a Russian mission at Kabul, and caused Lord Auckland, in jealous fear of Russian influence, to resolve on the restoration of Shah Shuja to the throne of Afghanistan. War was declared on October 1st, 1838, and a British army marched through the Bolan Pass, received the surrender of Kandahar, stormed Ghazni, and occupied Kabul in August, 1839. Shah Shuja, to the disgust of the people, was restored, and Dost Mahommed, after a gallant attempt to recover his position, went to Calcutta as a state prisoner.

For two years, the new Afghan sovereign was supported by British bayonets, while a storm was gathering in and around his capital. We can only say, in general terms, that the utmost weakness of management was shown by the British Political Officer, Sir William Macnaghten, and by the British commander and his colleagues. Akbar Khan, son of Dost Mahommed, had taken up his father's cause, and was organizing revolt throughout the land. On November 2nd, 1841, the mob of Kabul rose, killed Sir Alexander Burnes, the Political Agent, a former envoy to Dost Mahommed, and became masters of the city through the imbecility of the British officers who, instead of occupying the strong citadel,

the Bala-Hissar, scattered their men in indefensible cantonments. Supplies ran short early in December, and negotiations with the Afghan chiefs began. Lady Sale's journal of these events should be read by all who desire to see the contrast of a brave, wise woman with incompetent and even cowardly men. On December 23rd, Macnaghten was treacherously shot, at a conference, by Akbar Khan, and the British commander, on the 26th, without the least attempt to avenge the crime, made a treaty for the abandonment of the country there and then, in the depth of winter, with the surrender of all the cannon save six, and of all the treasure. On January 6th, 1842, a retreating host of 4500 soldiers, mainly sepoys, with over 10,000 camp followers, including many women and children, left Kabul for Jellalabad, a fortress ninety miles distant, defended by Major-General Sir Robert Sale. On January 13th, the sole survivor, Dr. Brydon, wounded, exhausted, clinging to his weary pony's neck, was brought into Jellalabad. Save a few score prisoners—officers and their wives, children, and servants—every other soul of all the thousands had perished in the Khoord-Kabul Pass, the Jugdulluck Pass, and at intermediate points, under the bullets and knives of the savage and treacherous Afghans, or from cold and exhaustion amid the deep-lying snow. The enemy then retook Ghazni, and vainly attacked Kandahar. The one bright spot amidst the gloom was Sale's noble and historical defence of Jellalabad, during a three months' siege, against all the efforts of Akbar Khan, who was finally driven off in rout. Lady Sale and the other captives were rescued, in the nick of time, just as they were about to be conveyed to the remote interior of Asia.

Lord Auckland, for the first successes in Afghanistan, had been created an earl. In February, 1842, he was superseded as Governor-General by the Earl of Ellenborough, a Tory statesman of powerful eloquence, and of real ability marred by love of showy and dramatic effects. It was absolutely needful, with a due regard to the safety of our position in India, to restore the credit of British arms in Afghanistan. This task was effected by Generals Pollock and Nott. They forced their way to Kabul, after repeated defeats of the Afghans, captured the city, blew up its finest building, the great *bazar*, as a sign of victory and a mark of disgrace, and then withdrew, leaving Dost Mahommed undisputed ruler in place of the hapless Shah Shuja, our nominee, who had been murdered soon

after the retirement of the British army that was destroyed in the passes.

The Afghan war led indirectly to our conquest of Sind (Scinde). This large alluvial territory was formed by the deposits of the great river Indus (*Sindhu*, in Sanskrit), from the native name of which its appellation is derived. In the eighteenth century, the country, once part of the Moslem empire of Delhi, became tributary to the Afghan ruler of Kandahar, but was afterwards virtually independent under princes or nobles styled *Mirs* (Ameers). The East India Company failed to establish any enduring commercial relations with the government, and it was not until 1830 that the lower course of the Indus was explored by any British officials. In 1832, a treaty was made, by which traders were allowed to use the roads and rivers of Sind, but no Englishman might settle in the country. In 1838, Lord Auckland, in plain violation of a clause in the treaty, used the river Indus as a military highway for the despatch of troops into Afghanistan, and the *Mirs* assumed a hostile demeanour which led to a partial British occupation. In 1842, Sir Charles James Napier, a veteran of the Peninsular War, commander of the Bombay army, arrived in Sind and assumed authority over all the country on the lower Indus. The *Mirs* were induced, in a new treaty, to agree to the cession of Karachi (Kurrachee) and other towns. The Baluchis (Beloochees) who formed the Sindian army resented this humiliation, and war ensued. On February 17th, 1843, Napier defeated them, at vast odds against himself, in the desperate battle of Meeanee (Miani), and, after occupying Haidarabad, won another and decisive victory in March. The country was then annexed to our dominions, with Sir Charles Napier as its first governor. Sind rapidly improved under his administration, and the resources of the country, developed and employed with energy and wisdom, gave new prosperity and contentment to the people.

At this time, trouble arose in the state of Gwalior. In February, 1843, on the death of the Sindhia who, ten years before, had been settled on the throne by Lord William Bentinck, a lad of eight years became, by adoption, the new Maharaja, with a regent approved by the government at Calcutta. This regent was displaced, and disturbance was caused at Gwalior, by the overgrown disorderly native army of 40,000 men whose existence was a

menace to the peace of that part of India. Lord Ellenborough was resolved to suppress this force and to restore complete order, and in December, 1843, he went in person to Agra with the army under Sir Hugh Gough, another of Wellington's men in the Peninsula, who had won distinction at Talavera and Vittoria, and had lately returned from the chief command of the forces in the first China War. This brave and able Irishman encountered the enemy on December 29th at Maharajpur, a village 15 miles north-west of Gwalior, where the Mahrattas were utterly routed with the loss of 56 guns and all their ammunition-train. On the same day, at Panniar (Punniar), 12 miles south-west of Gwalior, another British force, under Major-General Grey, won an equally complete victory over another Mahratta army. All their artillery, 24 guns, was taken, with the whole of the stores. The Treaty of Gwalior, concluded in January, 1844, reduced the Gwalior army to 9000 men, with 32 guns; gave the administration of the country to a council of regency, bound to accept and act upon the advice of the British Resident; and caused the cession of territory for the maintenance of another force, the Gwalior Contingent, trained and commanded by British officers. In June, 1844, Lord Ellenborough, long at variance with the Court of Directors, was recalled by that body. He left India at a time when events in the Punjab clearly pointed to the outburst of a great storm of war on the north-west of our dominions.

CHAPTER V.

BRITISH POSSESSIONS IN ASIA (*continued*). INDIA: HISTORY FROM 1844 TO 1858.

Sir Henry Hardinge Governor-General—Rise of the Sikhs—First Sikh war—Battles of Moodkee, Aliwal, and Sohraon—Lahore occupied—Lord Dalhousie Governor-General—His character and splendid administration—Second Sikh war—Gough's defeat at Chilianwala—His victory at Gujrat—The Punjab annexed—Sir Henry and Sir John Lawrence—Sir Robert Montgomery and Colonel Robert Napier—Lord Dalhousie's comprehensive reforms—His annexation policy—The Company's charter renewed for the last time in 1853—Competitive examinations for Indian Civil Service established—Change of military centres—Resignation and death of Lord Dalhousie—Viscount Canning Governor-General—Persian troops occupy Herat, and are defeated by Sir James Outram. THE INDIAN MUTINY—Its causes—Outbreaks at Lucknow and Meerut—Spread of the revolt—Loyalty of the Sikhs—Massacres at Cawnpore—Victorious march of Havelock—Havelock and Outram besieged in Lucknow—Capture of Delhi—Sir Colin Campbell reaches Lucknow—Death of Havelock—Cawnpore and Lucknow recaptured—Sir Hugh Rose's campaign in Central India—The Mutiny finally suppressed.

The new Governor-General, in succession to Lord Ellenborough, was Sir Henry Hardinge, another of Wellington's Peninsular veterans, "a very clever fellow" in war, as his chief described him, a man who had been active in the House of Commons from 1820 onwards, and had filled with credit, under both Wellington and Peel, the responsible office of Chief Secretary for Ireland. In his Indian post, he was soon to find ample scope for the exercise of his military skill in conjunction with the somewhat hot-headed commander-in-chief, Sir Hugh Gough. Before narrating these events, we must give a brief account of the rise of the remarkable people called Sikhs. They were not a nationality like the Mah-rattas, but a military confederacy developed from a religious sect that arose near the beginning of the sixteenth century. Their founder, Nanak Shah, otherwise called Baba Nanak, or Nanak Guru, was a pious monotheistic Hindu reformer, born near Lahore in 1469. Rejecting caste, idolatry, and superstition, he preached the worship of one Supreme Spirit, and inculcated purity of life. Hinduism was recognized in reverence for Brahmans, and in the prohibition of the slaughter of cows. The word *Sikhs* means "followers" or "disciples", and the successive "Gurus" or chief-priests were regarded as holy prophets, the representatives of God on earth. Akbar, the Mogul emperor, gave to the fourth Guru a

piece of land on the spot now occupied by the town of Amritsar (Umritsur). The building of a temple, and the digging of a holy tank, were the origin of this head-quarters of the Sikh faith, which gained many adherents, and aroused the jealousy of the Mogul rulers. Persecution both from Hindus and Mahommedans caused the new sect to adopt a military organization, and quiet sectaries were turned into fanatical warriors of the type of Cromwell's Puritans. Driven to the mountains from their seats near Lahore, they were first regularly formed into a religious and military commonwealth by the last Guru or apostle Govind Singh (or Sinh, meaning "lion") towards the end of the seventeenth century. Still unable to resist the Mahommedan persecutors, they became furious in their thirst for revenge, and from time to time issued from their retreats and massacred their foes in town after town through the east of the Punjab. The decline of the Mogul empire at last gave solid territorial power to the Sikhs, who founded many tribal confederacies, which became, in some instances, independent states. We have seen how the warrior Ranjit Singh founded the Sikh kingdom, which became the one great power in India outside the border of British influence and sway. His death in 1839 was the beginning of anarchy, and the court of Lahore was a scene of constant quarrel between rival ministers, generals, and queens. The one solid centre of strength in the land was the great and formidable army of 125,000 men, full of martial spirit and religious zeal. The British disaster in Afghanistan had created a belief in their minds that they could overcome British power in India. Ranjit Singh, a man who knew not how to read or write, but was possessed of a rare genius for acquiring and retaining dominion over men, had made this army into the most formidable instrument of war ever encountered in the East by British rulers. Drilled to perfection by French adventurers, Ventura and Allard, Avitabile and Court, they were furnished with over two hundred heavy cannon, cast in British foundries, and admirably served by well-trained gunners. After the death of their renowned and strong-willed master, they became utterly unruly. In a fury of arrogant self-will, they drove away the French generals, Avitabile and Court, and trusted to the leadership of their own officers, controlled by committees of five in each regiment, chosen from the ranks. After a long series of crimes and disorders at Lahore, the minister

Lal Singh, and the nominal commander-in-chief, Tej Singh, sought their own safety in directing the fierce energy of the troops against British power. Both these men were utter traitors to the Sikh army. In order to save Lahore from being sacked, they were sending the soldiery to the plunder, as they hoped, of Delhi and Benares, and to the conquest of British India. In any case, the slaughter of the soldiers would tend to the continuance of their own supremacy at Lahore.

In November, 1845, the first Sikh War began with the crossing of the Sutlej by a host composed of 60,000 regular troops, 40,000 irregulars or armed followers, and 150 guns. The struggle that ensued is well known from the war-histories, and needs brief notice here. Sir Henry Hardinge and Sir Hugh Gough marched for the frontier, and in the space of a few weeks, four pitched battles were fought. On December 18th, Lal Singh was, after a hard struggle, beaten at Moodkee (Mudki), where the gallant Sir Robert Sale received a mortal wound. Three days later, on December 21st, the British attacked the enemy's intrenched camp at Firozshah (Ferozeshah). After a desperate contest, in which British cannon were dismounted by the enemy's fire, British squadrons checked and disordered, and infantry battalions again and again driven back, only a partial success was won by the assailants through the use of the bayonet. On the following day, the Sikhs, owing to mutiny in their own ranks, and cowardice or treachery in Lal Singh, abandoned their still strong position, and made for the Sutlej. Tej Singh, coming up with another force, found the British in possession, and, after some use of his cannon, fled away to the river leaving his men to their own devices. In January, 1846, after both sides had been reinforced, the Sikhs crossed again to the British side of the Sutlej. On the 26th, Sir Harry Smith smartly defeated them at Aliwal, north-east of Moodkee, and drove them over the Sutlej with the loss of their guns and ammunition. On February 10th, the great battle of Sobraon, also on the Sutlej, where the enemy were intrenched on the river-bank, with a bridge of boats across, was gained by the united armies of Gough and Smith, supported by a train of heavy siege-guns from Delhi. Tej Singh fled at the first assault on his works, and the bridge of boats was broken, either by accident or design. His troops resisted with the utmost courage, and were only overcome by efforts which

cost the victors 2000 men in slain and disabled. The Sikh loss, by drowning as well as by shot, shell, musketry, and steel, was enormous, and 70 guns became the prize of war. This success ended the contest for a time. Ten days later, the Sikh capital, Lahore, was occupied, and peace was concluded with the civil power, now freed from the dictation of an overwhelming military force. A million and a half sterling was the sum exacted as payment towards the expenses of the war, and Gholab Singh, viceroy of Kashmir (Cashmere), who provided the million from his own resources, was made independent ruler of that country, and became an ally of the British government. Our frontier was extended from the Sutlej to the Ravi. Dhulip Singh, infant son of Ranjit Singh, was made Maharaja, under the regency of the queen-mother and the minister, Lal Singh, and the strength of the army was limited to 20,000 foot and 12,000 horse. Major Henry Lawrence became Resident at Lahore, as adviser to the Council of Regency, and all things seemed fairly settled in the Punjab. The Governor-General became a peer as Viscount Hardinge, and Gough received a barony for his successes in the field. At the express request of the civil rulers at Lahore, who still dreaded the Sikh soldiery, a British force was left in occupation. During 1846 the minister, Lal Singh, was removed from office and taken to British territory as a life-prisoner for a gross act of treachery in encouraging rebellion against Gholab Singh of Kashmir. Hardinge, until his return to England in 1848, was most usefully engaged in reorganizing the army and in effecting financial reforms. The north-western frontier was strongly guarded by 50,000 men with 60 guns, and a complete army, ready to take the field at once, was maintained in camp at Ferozpur (Ferozepoor).

The greatest Indian ruler of the nineteenth century came upon the scene of his future action when James Ramsay, tenth earl of Dalhousie, landed in January, 1848, at Calcutta. He came to refound the fabric of British power established fifty years before by the Marquess Wellesley. It was he who, in a grand eight years' career of conquest, annexation, consolidation, and development, created the British India of the present day with her foreign relations, her internal problems, and her economic position. The extension of our frontiers to west and east brought British dominion, in the ultimate results of his policy, into contact with Russia on the

one side and with China on the other. The territories under direct British government, and the feudatory or subsidiary or protected states, began to coalesce, under Dalhousie's rule, into a united Indian Empire. An industrial revolution began with his energetic and provident labours for the extension and improvement of the means of communication and for the execution of other important public works. The effects of his arduous exertions, which cost him his life, are to be seen on all sides in our Oriental Empire—in a great expansion of territory, in the existing methods of rule in native states, in canals, roads, steamer-routes, railways, telegraphs, cheap postage, and educational work. New life, new light and activity—commercial, intellectual, and political—have been the creation, in India, of the forces set in motion by Lord Dalhousie's energetic spirit and unwearied toil. The person, character, and earlier career of this great and admirable man may be briefly sketched. Born in 1812, at Dalhousie Castle in Midlothian, he passed some of his early years in Canada, where his father was Governor-General. Educated at Harrow, under Dr. Butler, from 1822 to 1829, he saw there, in 1824, the Marquis of Hastings, the conqueror of the Mahrattas, when he paid a visit to his old school. On leaving Harrow, young Ramsay became, at Christ Church, Oxford, a younger fellow-student of Mr. Gladstone, and formed friendships with the young men who became, as Lords Canning and Elgin, his own successors in Indian rule. In 1832, the death of his eldest brother made him Lord Ramsay and heir to the earldom. In 1837 he entered Parliament as M.P. for Haddingtonshire, and in the following year his father's death made him Earl of Dalhousie. In Sir Robert Peel's second ministry, he became, in 1843, Vice-President of the Board of Trade under Mr. Gladstone, and, two years later, succeeded him in the Presidency. The rising young statesman showed the utmost energy and skill in developing the British railway-system, and resigned office, with his illustrious chief, Sir Robert Peel, in 1846. Such was the impression made by his abilities and industry, not only on his Conservative colleagues and friends, but on Whig opponents, that his appointment, at the close of 1847, in his thirty-fifth year, to the Governor-Generalship of India came from Peel's successor, Lord John Russell. When Dalhousie left his native country for the East, it was believed by his admirers, not without good evidence,

that he was relinquishing a fair chance of becoming, in due time, Prime-Minister at home. This born ruler was, like Lord Wellesley, a "glorious little man". His stature was small, but his finely-formed head, keen glance, lofty bearing, and noble intellectual and moral qualities produced in succession, on those who were brought into his presence and under his influence, the feelings of awe, confidence, admiration, devotion, and personal love. No other man that has ruled India ever won so high and enduring an esteem alike from the civilians and the military men who shared his labours, and from the British public who had no official knowledge of or connection with the scene of his masterful and masterly administration. Men like Sir James Outram, veteran soldiers and civil rulers, felt themselves quite overborne by the young king of men, with his large, bright, blue eyes, majestic air, mobile mouth, and sweet, clear tones of voice. We have only space to add that the severity of toil with which Lord Dalhousie mastered the details and directed the work of every department was something rarely seen among the rulers of mankind.

The first work that fell to the lot of the new Governor-General was the second Sikh War. Trouble arose at Multan (Mooltan), a place of great trade, with a strong fortress, near the river Chenab. Two British agents, Mr. Vans Agnew, of the Civil Service, and Lieutenant Anderson, were murdered by the mob in April, 1848. The British army could not move in the hot season, but the credit of our name was supported by the prompt and daring action of the young Lieutenant (afterwards Sir Herbert) Edwardes, who brought up a force, on his own responsibility, from his revenue-district beyond the Indus, defeated the Sikh governor on June 18th, and forced him into the citadel of Multan. The disbanded soldiers of the Sikh army rose in arms, and the whole of the Punjab was in a flame of revolt. The character of Lord Dalhousie is partly shown by the words which he uttered in a public speech on leaving Bengal, in October, 1848, for the scene of hostilities. "Unwarned by precedent, uninfluenced by example, the Sikh nation has called for war, and on my word, Sirs, they shall have it with a vengeance." An Afghan force of Dost Mahommed Khan's joined the Sikhs; the British garrisons were driven from Peshawar and Attock, and the work of subduing the Punjab had to be begun afresh. Truth before patriotic prejudice should be the historian's maxim, and we

must plainly record that, after an indecisive action at Ramnuggur, on the Chenab, on November 22nd, 1848, Lord Gough sustained a virtual defeat on January 13th, 1849, at Chilianwala, where a great Sikh army was strongly intrenched on the left bank of the Jhelum. A rash attack, made with wearied troops, at the close of a day's march, on the front of a position defended by many heavy guns, some of which were masked by jungly growth, caused the hasty retirement of one British and one Bengal regiment of cavalry, and a total loss of 2400 officers and men, horse and foot, in killed and wounded, with the capture of four British guns and the colours of three regiments. Before Sir Charles Napier, the conqueror of Sind, despatched from England to take the command, in the shock of dismay and wrath hereby caused, could arrive in the field, Lord Gough had retrieved his own credit and that of our arms in a complete victory at Gujrat (Guzerat, or Goojerat) east of Chilianwala. In this "battle of the guns", as it was called, the British commander made terrible use of a strong artillery, pouring in shot and shell for two hours and a half, before sending his men, in a headlong rush of bayonets, sabres, and lances, against the shaken foe. With the loss to the victor of a few hundreds of men, the military power of the Sikhs was utterly ruined. Camp, standards, and cannon were taken; the Afghans were driven off in hasty flight, closely pursued as far as the mouth of the Khyber Pass, within their own borders; and on March 12th, the remnant of the Sikh army piled arms in surrender at Rawal Pindi. The crowning success at Gujrat, gained on February 20th, 1849, had been preceded by the storming of Multan by General Whish, whose victorious troops had then reinforced Lord Gough, and taken part in the final struggle. On March 29th, the annexation of the whole Punjab as a British province was proclaimed, and the young deposed Maharaja, Dhulip Singh, brought to England for education, received a yearly annuity of over fifty thousand pounds, embraced the Christian faith, and lived for many years, like an English squire, on his Norfolk estate. Thousands of the Sikh disbanded army were enlisted under the British colours, in a service where their courage and loyalty became as conspicuous as their former gallant behaviour in the hostile ranks.

The consolidation of the Punjab, in the creation of a regular system of beneficial administration for a conquered country whose

area then consisted of 73,000 square miles, or nearly $1\frac{1}{2}$ times that of England, is a magnificent instance of Lord Dalhousie's powers as a ruler, a triumph of practical statesmanship that used the Indian experience of a hundred previous years in devising methods which avoided all former errors and provided safeguards against all known abuses. After the scattering and disbanding of the Sikh soldiery, internal peace was secured by a general disarmament of the population, save in the frontier districts and the Peshawar valley. About 120,000 swords, daggers, firearms, and other weapons were delivered up, and a military police of horse and foot, with a separate detective body, numbering in all 11,000 men, was placed under the orders of British District Magistrates. The old Village Watch retained its function of tracking criminals from hamlet to hamlet in a regular course affording no peace or resting-place to breakers of the law. Slavery was abolished; the thugs were extirpated; infanticide was sternly repressed; outlaws and dacoits, the terror of villagers and peaceful wayfarers, were hunted down. The frontier to the west, at the foot of the mountains beyond the Indus, needed special care against the inroads of warlike, lawless freebooters, numbering a hundred thousand armed men of various tribes which, since the days of Akbar, had come forth from the recesses of the hills to prey upon the dwellers in the river-plains. A line of armed posts, connected by roads, was speedily formed, and the new civil government of the country had at its disposal a Frontier Force of five regiments of foot and four of mounted men. These frontier-guards were ever on the move from point to point, encumbered with no baggage except what could be easily borne on the trooper's horse or the shoulders of the infantry. The army of occupation in the newly-annexed territory made up 50,000 regular troops, and, after thus providing against attacks from without and disorder within, the Governor-General gave to the Punjab its first effective civil and judicial administration. Under the purely despotic rule of Ranjit Singh, soldiers and tax-collectors had been the sole officials. Fines and mutilations, in the lopping of noses for theft, of hands for highway robbery, with ham-stringing for burglary committed by night, were the only punishments. There was no civil court except at Lahore, and judicial decisions depended merely on the caprice of a judge or the amount of a suitor's bribe. The people of the Punjab were now to feel the blessings involved in their complete

subjection to a foreign race rarely found deficient in the practice of humane and equitable dealing. The whole province was made into seven divisions, each with its own Commissioner; a division included districts, under deputy-Commissioners; and these fifty-six superior officials were chosen in equal numbers from the regular civil and military services. Their subordinates came from the "uncovenanted" service, including British, Eurasian, and native subjects of the Crown. The whole local management of affairs was at first intrusted to a Board of Administration of three members, Colonel, afterwards Sir Henry, Lawrence, of the Bengal Artillery; his brother John, afterwards Sir John and Lord Lawrence, of the Civil Service, who became Viceroy; and Mr. C. G. Mansel, soon succeeded by Mr., afterwards Sir Robert, Montgomery. In 1853, this Board-system was exchanged for the sole rule, as Chief Commissioner, of John Lawrence. The two Lawrences and Robert Montgomery, always under the watchful eye and firm controlling hand of their great chief, rendered valuable service in carrying out the peaceful revolution which, in seven years, made the Punjab one of the best-governed and most prosperous parts of the whole British empire. Montgomery, charged with the administration of justice, drew up a brief and serviceable manual of law for the guidance both of the officials and the people. Henry Lawrence provided for military defence and the reduction to a powerless state of the Sikh Sirdars (Chiefs and Fief-holders) whose resources had been freely used against the Calcutta government during the recent war. They were now deprived, in Dalhousie's words, of all but "their lives and their subsistence", and in his instructions to Henry Lawrence, who strove to shield them from utter confiscation, the stern Governor-General wrote:—"Let them be placed somewhere under surveillance. . . . If they run away, our contract (as to the award of a decent maintenance) is void. If they are caught, I will imprison them. And if they raise tumult again I will hang them, as sure as they now live, and I live then." John Lawrence resettled the land-tax, village by village, at an assessment far below that of the old Sikh system, with the result of leaving three-fourths, instead of half, the produce in the hands of the cultivators, and of gaining a larger revenue. The renters paid coin instead of kind, with a 10 per cent further reduction for this change, and this liberal treatment quickly brought a large increase in the number of

farmers, including thirty thousand of the soldiers who had fought so fiercely against Hardinge and Gough. A wise application of the doctrine of Free Trade, then recently adopted in Great Britain, swept away, at a stroke of Lord Dalhousie's pen, a most oppressive system of transit-duties by which the rule of Ranjit Singh had made bales of goods, in levies at every city-gate, pay twelve separate imposts in crossing the province. The new fiscal system reduced the number of taxes from nearly fifty to about half-a-dozen, and honesty in the revenue-collectors, with a proper method of audit, largely increased the revenue from a greatly-relieved population. Nor must the work of Colonel Robert Napier be forgotten, a man who, best known as Lord Napier of Magdala, dying in 1890 as Field-Marshal, and Constable of the Tower, won his fairest title to fame as chief engineer of the Punjab. To his constructive and administrative genius and energy that flourishing land owes its noble system of canals for irrigation, and its public roads. His design and supervision gave the country the Grand Trunk Road as a main line of communication, crossing the land from Lahore to Peshawar with its solid highway for nearly 300 miles, passing over 100 large and 450 smaller bridges, piercing six hill-ranges or mountain-chains, and borne by embankments across the swampy sides of two great rivers. The Bengal Engineer also planned the Bari Doab Canal, between the Ravi and the Chenab, rivalling the greatest European works of its class, stretching, with three branches, over nearly 500 miles of ground, and turning deserts into gardens with its fertilizing waters. In all directions where the tillers of the soil needed moisture for a crop, old canals were repaired, and new work was vigorously taken in hand. The watchful care of the Governor-General furnished money in loans to the village-cultivators for the reclamation of waste-land, and introduced a system of State-forests. Such a ruler as he would hardly forget the moral and mental condition of a subject-people. A few years saw the rise of schools in every district for the training of the young both in European and in Eastern fashion. A striking proof of the moral reform beginning to work in the native mind was given at a great public meeting held in the sacred Sikh city of Amritsar. Under the impulse of humane feeling awakened amidst new legal and moral sanctions, and stirred by gratitude for benefits conferred by British rule, native deputies representing the nobles, priesthood,

and people came together and made a solemn compact for the reduction of the heavy wedding-expenses which had greatly promoted the barbarous practice of female infanticide, by aggravation of the burden felt in providing for daughters in marriage. It was in the true spirit of Lord William Bentinck that Dalhousie, in all his dealings with native states, used his influence and power to the utmost stretch of legal right under the treaties, in order to abolish practices repugnant to true civilization. Every native ruler who failed in real endeavours to suppress self-torture, witch-hunting, widow-burning, the mutilation of criminals, female infanticide, and like barbarism was certain to feel the weight of the Governor-General's displeasure. His vanity was wounded by threats of the loss of his due salute in number of guns fired on state-visits, or by actual exclusion from the British ruler's *darbar* or state-reception, or by deprivation of some other token of regard from the supreme government.

The organization of the Punjab may be taken as a sample of Lord Dalhousie's energetic methods in the administrative reform of British India. He founded the Public Works Department which has covered the land, since his day, with a network of railways, roads, and canals. In 1850, he turned the first sod of the first Indian railway. In 1853, he drew up the famous "Railway Minute" by which his successors carried out the whole Indian railway-system. Before he left the country, three years later, thousands of miles of line were being constructed or surveyed. He enlisted British capital and private enterprise in the creation of these great works by offering them to public companies under a State-guarantee, and thus drew men and money from the West into other spheres of enterprise connected with the trade and products of the East. Many fiscal restrictions on commerce were removed, and, while the Indian ports were opened to the world, the convenience of mariners and merchants was served in the erection of lighthouses, the extension and deepening of harbours, and the increased accuracy of marine surveys. The telegraph-system of India was started amidst all the difficulties due to the lack of skilled special engineers in that department, to the electrical effect of tropical storms, to the destructive force of hurricanes, and to the action of white ants, wild beasts, and thieving savages upon the timber-posts carrying the wires through jungles and over hills.

Mischievous monkeys dragged the lines down into festoons, or dangled ill-conducting tails from wire to wire. Wild birds roosted in such numbers on their new perch as to bring down wires in ruin to the ground. Every obstacle was met and overcome by Dalhousie's self-trained electricians. Special devices met special needs, and the wires, in their military service during the Mutiny, carried terror to the hearts of the more intelligent among our foes. A new branch of the Government Service arose in the highly-trained civil engineers brought out from home to develop the resources of India in every department of their profession. One of Lord Dalhousie's greatest services to the countries which he ruled was the institution of a cheap and efficient postal-system. On his arrival in India, he found arrangements for the transmission of news by letter no more advanced than those which had existed, under the rule of the "Great Mogul", two centuries before. The postage of a letter cost over three days' wages of a skilled native artisan; the Post-Office department, such as it was, was worked at a heavy loss, and, in the country districts, gross irregularity and corruption were the rule. In 1853-54 a complete change took place. Letters of a certain weight were henceforth carried to any part of India, over distances which might reach to 2000 miles, at the uniform rate of half an *anna*, a sum now equal to a halfpenny. The use of postage-stamps made an end of the wrongful extra-fee formerly levied, in countless cases, by the rural postmen from native recipients of letters. The Post-Office quickly became self-supporting, and the social change ensuing has been as wide and deep in its ultimate effect as it has been silent and subtle in operation. The grand reform brought about by the Governor-General's "Post-Office Commission" created letter-writing on a large scale among the natives of India, as is amply proved by the facts that the number of letters posted throughout India rose from under 20 millions, and those to a large degree official communications, in 1853, to 360 millions in 1895, this vast increase being chiefly due to private correspondence. Another of this great statesman's achievements was his share in founding a national system of education. After five years' tenure of office, during which he reviewed all the existing methods of public instruction, Lord Dalhousie urged the home authorities to extend into all the North-Western Provinces the system based neither on English nor on the

classical languages of India, but on the modern vernacular forms of speech used by the Indian peoples. In July, 1854, Sir Charles Wood (afterwards Lord Halifax), President of the Board of Control in London, in a very able and comprehensive despatch, a State-paper of the first order, dealt with the whole question in full accordance with the Governor-General's views. The system thus initiated has been greatly developed by successive Viceroys, with results described in another place. In the words of Sir W. W. Hunter (*Rulers of India; The Marquess of Dalhousie*) "This was the crowning act of consolidation accomplished in India under Lord Dalhousie. It has set in motion new forces, intellectual and political, whose magnitude it is impossible to gauge. Amid all the checks which occurred to Dalhousie's consolidating system in India, after his firm hand was withdrawn, this tremendous factor of unification has gone on working without break or intermission, gaining strength, and displaying its marvellous results on an ever-extending scale." The railway, the telegraph, the halfpenny post, and the State-inspected school were the beginning of that unification of the Indian races, the welding of a hundred different tribes into one people, which is the mighty, most momentous change now quietly at work in the new India moulded by the Marquess of Dalhousie.

Before dealing, lastly, with the great subject of Dalhousie's increase of territory by annexation, it is only bare justice to his memory to record that he foresaw the dangers involved in the great increase of numbers in the regular native army since the days of the first Afghan War, as compared with the European force maintained in India. With a view to possible mischief, he put an end to the plan of keeping large bodies of native troops together in camp, without any admixture of British soldiers; he raised hill-regiments of the brave Goorkhas (Ghurkhas) of Nipal (Nepaul) as a force on whose loyalty the government could rely; he created in the Punjab a new Irregular Force, separate from the general army, with a special form of discipline, and under the immediate orders of the Punjab civil government. Above all, he protested, and he protested in vain, against the withdrawal of British regiments from India; he urged, and he urged in vain, an increase of their strength. In spite of his remonstrance, two regiments were withdrawn, in 1854, for service in the Crimean War,

and his nine Minutes of February, 1856, his last official act, urging military changes absolutely needful for safety, were wholly disregarded by the home authorities.

It is on the subject of his annexations that the work of Lord Dalhousie has been most seriously challenged. We have here only to state the principles on which this great increaser of our dominion acted, and the successive additions which he made to the territory under direct British rule, Lower Burma being dealt with at a later part of this narrative. It was this Governor-General's lot to arrive in India at the time when the non-intervention system had been proved to be a failure so far as the welfare of the peoples of India was concerned. The native princes, by treaties and alliances, were so connected with the British government that, while our rulers undertook to guard them against external foes and internal revolt, so long as they remained loyal to our supreme dominion, the Governor-General and his Council claimed no right of interference with the conduct of the native ruler towards his own subjects. The consequence was that, during the first half of the nineteenth century, many of the chief native states in the centre and the north of India had sunk into a condition of misery and misrule that were most discreditable to the sovereign power which continued to witness and permit the existence of those evils. Despots were secured by British bayonets against the only remedies of oppressed peoples, rebellion and deposition. The native princes had power for evil as for good, but were devoid of responsibility for their acts, since a force with which no rebels could cope was at hand to maintain them on the throne in spite of their folly, their vices and their crimes. Lord Dalhousie made a summary end of this condition of affairs. He was fully resolved to apply in India the British principle that government is to exist for the good of the governed. He aimed at the extension of British territory with a view to the strengthening of British rule in the interest of the Indian peoples. With this object, he set aside the native claim of a childless ruler's right to adopt a son, by Hindu custom, and so perpetuate a line of rulers. He would only admit that an adopted son could inherit the private estate and treasures of a deceased Raja, without any claim to his vacant throne, and in this contention it is certain that Dalhousie was only applying a principle not of his own invention, but one sanctioned by the Court of Directors and by the decision

of his predecessors in office. In 1849 the state of Satara was thus annexed. Sambalpur, a territory on the south-western frontier of Lower Bengal, also "lapsed" into British possession. The childless chief expressly declined to adopt an heir, in order that his subjects might have the benefit of British administration. In 1853, Jhansi, misgoverned for thirty years, was annexed "as an escheat", on the failure of a male heir. On the same principle of lapse, Jaitpur, in Bundelkhand; Udaipur, on the western frontier of Lower Bengal; and a part of Khandesh, in the Bombay Presidency, came under direct British rule. In 1853, on the death of the last Mahratta prince, the Raj of Nagpur (Nagpore) was also annexed as the "Central Provinces", and the Berars were received from the Nizam of Haidarabad as a territorial security for his arrears of subsidy, and for the pay of the contingent of troops. The province of Oudh, after repeated warnings already noticed, was taken from the miserable debauchee and tyrant who had ruled under British protection, and the dense population of a fertile province for the first time, in 1856, came under the control of a just and beneficent administration. Lord Dalhousie bade General (afterwards Sir James) Outram, the Resident at the Court of Lucknow, to assume the direct government of Oudh, with the emphatic declaration that "the British government would be guilty in the sight of God and man if it were any longer to aid in sustaining by its countenance an administration fraught with suffering to millions". The proclamation of the king's deposition went forth on February 13th, 1856, and the dethroned monarch, after sending his mother, brother, and son on a fruitless mission to England, lived for many years at Garden Reach, Calcutta, on his pension of £120,000 a-year. The territorial unification of India effected by Lord Dalhousie, including his annexation of Lower Burma, really completed the fabric of British rule. With the exception of Upper Burma, our frontier was carried to its utmost limits to north-west and to the east, and the centre was filled in by the annexations already named. About a quarter of a million of square miles, with over 30 millions of people, had been added to our dominion in the East, making British India between one-third and one-half larger than the territory of which the Governor-General assumed charge at the outset of his period of rule.

The year 1853 is noteworthy for the Act which, renewing for

the last time the Charter of the East India Company, not for any fixed term of years, but only for a period to continue during the pleasure of Parliament, also abolished the patronage of the Directors in the superior or covenanted branch of the Civil Service. That service was henceforth, as too important a branch of national administration for the exercise of a free choice by any authority, thrown open by competitive examination to the youth of Great Britain. The first "India Civil" examination was held two years later, the College at Haileybury remaining open until 1858 for the benefit of "probationers" already nominated who were there under special training. The same Act relieved the Governor-General of his responsibility, as "Governor of Bengal", in the direct administration of the Lower Ganges provinces, and appointed a "Lieutenant-Governor of Bengal". At the same time, Lord Dalhousie shifted the military centre of India, in accordance with the territorial changes which had so greatly altered the political position. The head-quarters of the Bengal Artillery, formerly lying seven miles from Calcutta, were removed to Meerut, a thousand miles away, in the North-Western Provinces. Calcutta and Lower Bengal were no longer the strongly-garrisoned points, and, with the movement of troops towards the north-west, Barrackpur, 16 miles from Calcutta, became in time a suburb for the wealthier citizens of the town, instead of a strong cantonment. Chinsurah, a few miles further up the Hugli, had not a soldier in its splendid barracks; Dinapur, nearly 350 miles distant by railway from Calcutta, was the nearest place to the seaboard with a garrison of any great strength; and the seat of government for the supreme authority has been since 1865 removed, for most of the year, from the capital of Bengal to Simla in the Punjab, which has also become the permanent head-quarters of the army.

Less than three weeks after the annexation of Oudh, Lord Dalhousie, completely worn out by his long and incessant toils, resigned his great office. Stricken down in 1853 by the loss of his wife, a daughter of the Marquess of Tweeddale, he had remained far too long at the post of duty. His strength and life had been gradually but surely ebbing away. After welcoming his successor on February 29th, 1856, at Government House, Calcutta, and receiving expressions of admiration, gratitude, and regret from deputations representing every class of the community, he embarked for

England amidst a crowd of persons on the Hugli-shore. Their cheers, scarce begun, were cut short by the sight of the prematurely aged man, bent with disease, and supported on crutches, tottering towards the river-side. A pathetic hush, more eloquent than the loudest plaudits, fell on all who witnessed that memorable scene. The Company, so soon itself to expire, voted Dalhousie a well-won pension of £5000 a-year. Severely shaken by the Indian events of 1857, he lingered on till the close of 1860, and then the great proconsul, the "Laird o' Cockpen", still more than a twelvemonth short of his fifty years of life, was laid to rest in the olden burial-place of the Dalhousies.

Viscount Canning, the friend of Dalhousie, born in the same year (1812), and now in his forty-fourth year, was the third son of George Canning, and in 1837 inherited, through the previous death of two brothers, the peerage conferred on the widow of that statesman. In 1841 he became, in Sir Robert Peel's government, Under-Secretary for Foreign Affairs, and then Commissioner of Woods and Forests. In the ministries of Lord Aberdeen and Lord Palmerston he was Postmaster-General, and early in 1856, as a cautious, moderate, safe, and able administrator, he was appointed to succeed Dalhousie as Governor-General of India. He seemed to be entering on a peaceful task. He was destined to be tried by the most important, tragical, and troublous event, or series of events, in the whole of Anglo-Indian history. We may say at once that, viewed in the full light now shed upon those transactions, he proved himself to be a ruler of singularly calm courage and sound judgment, well suited to the terrible crisis through which India was to pass. A little war with Persia, whose Shah, contrary to treaty with the British government, had taken possession of Herat, on the western frontier of Afghanistan, was quickly settled. An expedition under Sir James Outram sailed from Bombay for the Persian Gulf. Bushire was taken, the Persian troops were defeated in several actions, and the war ended with the victory of Barazjoon, forcing Persia to withdraw her troops from Afghanistan and to acknowledge the independence of Herat.

These small events, concluding in March, 1857, were followed by the outbreak of the revolt variously known as "The Mutiny", "The Sepoy Mutiny", "The Indian Mutiny", and "The Sepoy War". It is needless to enter here at any length into the origin

and progress, with all its horrors, hairbreadth escapes, and heroisms, of this tremendous test applied to the courage, endurance, and power of combat against enormous odds, of British soldiers and civilians in the East. How they came forth from that unequalled trial all the world knows, and history, to her latest day, will tell. The grand subject has a literature all its own, and every British reader knows, or should know, much of its most moving scenes. Volumes have been written concerning the causes of the great rising against British rule, but the real explanation is very simple. The sepoys of the Bengal army, mostly Hindus of high caste, were stirred by an irrepressible feeling of genuine fanaticism under the belief that the British rulers of India were bent upon destroying their purity of blood, as part of a general scheme for subverting their religious institutions. Nothing could be really more groundless than such an assumption, and yet suspicion and dread were, it must be admitted, justly aroused by certain official mistakes. In July, 1856, a military order was issued that future enlistments in the Bengal army, a service regarded by men of the peasant-proprietor or yeoman-farmer class, men of good caste, as furnishing, even in the ranks, a well-paid and honourable career, would render soldiers liable, as in the Bombay and Madras armies, to service beyond sea, to the crossing of the "black water" which the Hindu dreads and abhors. Early in 1857, the introduction of the Enfield rifle into the Indian regiments required the supply of new cartridges, which in the English factories were always greased with the fat of beef or pork. It is a fact beyond dispute, that the authorities in India ordered the cartridges prepared at Calcutta to be greased in the same fashion. It is also a fact that none of these cartridges were ever issued to the troops. They were replaced by others greased with mutton-fat, a substance which could convey no pollution either to the Hindu or to the Mahommedan soldier who, before loading his rifle, had to bite off the paper at the end of the cartridge. The rumour spread that the cartridges issued were greased with a mixture of beef-fat and lard, and the minds both of the Hindu sepoys and of their Mahommedan comrades were at once inflamed. To the Hindu, beef is forbidden as the flesh of a sacred animal; to the Mahommedan, pork is accursed, as the flesh of an unclean creature. We must remember what caste-feeling is to the Hindu. It is based on a fixed belief in the essential differ-

ence of blood in each caste. It includes a social feeling and a religious feeling. The high-caste Hindu firmly regards himself as nobly born, and as one of the Elect. He believes with the utmost sincerity, depth, and tenacity of faith that the personal pollution involved in the tasting of beef means the loss of all social and personal respect in this world, and the suffering of endless perdition in the next. To some Western minds, this appears as mere folly, to be treated only with contempt, or as the hypocritical pretence of men desirous of upholding, against rulers of alien blood and religion and habits, a native superstition not seriously entertained. To the Hindu sepoy, however, the results of such pollution were intensely true, and his Mahommedan comrades, mostly descended from converted Hindus, regarded pollution by pork in much the same light.

The story concerning the greased cartridges flew through the land, and, along the Ganges and Jumna, at Benares and Allahabad, at Agra and Delhi, the most credulous and excitable soldiery in the world became wild with a panic of indignation and fear. In January, 1857, there was trouble with the troops at Barrackpur, near Calcutta; in February, mutiny was with difficulty stayed at Berhampur, 120 miles up country, near Murshedabad. In April, signs of excitement were seen at the military stations throughout Hindustan and the Punjab. On May 3rd, a regiment of Oudh Irregular Infantry mutinied at Lucknow, but the men were promptly disarmed by Sir Henry Lawrence, the new Chief Commissioner, who had at hand the 32nd British regiment of foot, and a battery of guns manned by Europeans. On May 6th, some sepoy troopers at Meerut, forty miles from Delhi, and the largest cantonment in India, refused to receive some perfectly innocent cartridges of the old pattern, and about fourscore were tried by a court-martial of native officers, found guilty, degraded, and imprisoned. On Sunday, May 10th, while the British authorities were culpably heedless of danger from the native lines, the 3rd Bengal cavalry, and two regiments of native infantry rose in revolt, shot down some British officers, murdered many European men, women, and children, set fire to British quarters, released their comrades, with many other criminals, from the jail, and made off to Delhi, where they called on the aged Mogul king to head the revolt and proclaimed him sovereign of Hindustan. Throughout the north of India there were scarcely more than 20,000 British troops, and these were

scattered in small detachments over many hundreds of miles of country. Many of the Bombay troops joined in the rising, and rascals of every kind flocked to the standard of the sepoy rebels. The *talukdars*, or great landowners, of Oudh, incensed by the late annexation and its summary ending to their tyrannical sway, eagerly embraced the cause of revolt against British power. Sindhia, the ruler of Gwalior; the Nizam of Haidarabad, with his able minister, Salar Jung; Holkar of Indore; Gholab Singh of Kashmir; and Jung Bahadoor, of Nipal, were steadily faithful to the British suzerainty during this supreme native effort to throw off our dominion.

The loyalty of the Sikh troops in the Punjab was a tower of strength to the British cause. The sepoys were disarmed, and Sir John Lawrence, the Chief Commissioner, was able to send reinforcements to his countrymen besieging Delhi. In June and July occurred the two massacres of Cawnpore and the famous victorious march of Havelock to that city, entered by his troops on July 16th. Lucknow, after a nearly four months' siege of our people in the Residency, and the death of Sir Henry Lawrence, on July 4th, by a wound from a shell, was reached by Outram and Havelock in the last week of September, but they were then themselves blockaded for some weeks by a host of foes. The capture of Delhi, on September 21st, after six days' street-fighting, and more than three months' siege, was the first serious blow dealt to the great rebellion. The capital of Hindustan was once more in British hands, and the arrival of Sir Colin Campbell, afterwards Lord Clyde, from England, followed by that of many thousands of men, made the issue of the struggle one of certain success for our arms. On November 17th, Campbell forced his way into Lucknow, and released Outram and Havelock, with the sick and wounded, and the women and children, so long beleaguered in the Residency. A week later, Havelock died of disease, the baronetcy conferred by the Queen being transferred to his brave son Henry. Cawnpore, taken from our hands by mutinous troops of the loyal Sindhia of Gwalior, was re-captured in December by Campbell and Sir Hope Grant. On March 1st, 1858, Sir Colin, heading 20,000 British troops, with 100 guns, was again near Lucknow, still held by a vast force of rebels. With small loss to the assailants, the capital of Oudh, after twelve days' operations, was finally occupied,

and the neck of the rebellion was thus broken. The valley of the Ganges was then swept clear of all scattered parties of foes by flying columns, or complete small armies, of artillery, cavalry, infantry, and engineers, fitted for every kind of work, who marched hither and thither, seizing post after post, and making an end of all resistance. Central India, where much trouble had arisen from the brave and able Rani, or princess, of Jhansi, and the very skilful general Tantia Topi, was conquered in a most brilliant campaign, conducted during May and June, 1858, by Sir Hugh Rose, afterwards Lord Strathnairn. On December 20th, 1858, Lord Clyde, as commander-in-chief, was able to report to Lord Canning that the last remnant of the mutineers and insurgents had been driven across the mountains between Nipal and Hindustan. Tantia Topi, indeed, hunted about after many defeats, was not finally taken and hanged, for his share in the Cawnpore massacres, until April, 1859. The struggle for supremacy, begun with every conceivable advantage of circumstance on the side of rebellion, had ended for the rebels in failure so complete that, from that day, the most enlightened natives, deeply impressed by the events of that exciting time, have come to assume the continuance of British rule in India as a matter fixed beyond the possibility of change. If the general revolt, the desperate attack on British power, of the very troops who largely contributed to build it up, who had so great a share in the overthrow of the gallant Sikhs, had failed to subvert our dominion, who should have any hope of success in such an enterprise? The sepoy mind, once for all, was disabused of vain conceits. He had found his master; he had learned that, beyond the seas, there were great reserves of British strength; above all, in the scrupulous heed which, in a remodelled native army, was paid to his religious prejudices, he found how grievously he had mistaken the purposes of British rule in the land.

CHAPTER VI.

BRITISH POSSESSIONS IN ASIA (*continued*). INDIA: HISTORY FROM
1858 TO THE PRESENT DAY.

Extinction of the East India Company—Changes in the administration—Proclamation of Queen Victoria at Allahabad—The Viceroy receives the homage of princes and chiefs at Agra—Indian revenue—Death of the Viceroy Lord Canning—Earl of Elgin succeeds—Defeat of the Wahabis—Death of Lord Elgin—Sir John Lawrence Viceroy—Troubles with the Bhutanese—Famine in Orissa, &c.—Sir John Lawrence resigns, and is succeeded by the Earl of Mayo—His successful administration—Is assassinated—Opening of Suez Canal—Expedition against the Lushais—Lord Northbrook Viceroy—Another famine—Visit of the Prince of Wales to India—Resignation of the Viceroy, and appointment of Lord Lytton—A great cyclone—The Queen proclaimed “Empress of India”—Devastation by famine—War with the Afghans—Brilliant march of General Roberts—Defeat of Ayub Khan—Lord Ripon succeeds Lord Lytton as Viceroy—The “Ilbert Bill”—Lord Ripon’s reforms—Sir Salar Jung—Lord Dufferin Viceroy—Russian aggression—Attack at Penjdeh—New frontier marked out—The Queen’s Jubilee in India—Lord Lansdowne Viceroy—Development of local government—Means of defence against external and internal foes—Labours of Sir Donald Stewart and Lord Roberts.

The sepoy rebellion brought with it the political extinction of the East India Company. The whole Indian administration was transferred to the Crown by the abolition of the “double government” vested in the Board of Control and the Court of Directors. On September 1st, 1858, the political functions of the Directors ceased, but the Company still existed for the management of their “East India Stock”, all other property being vested in the Crown for the purposes of the government of India. An Act of 1873 redeemed the dividends on the capital-stock, and on June 1st, 1874, after its long, chequered, and, on the whole, glorious history, the East India Company was finally dissolved. The great statutes of 1858 and 1861, which reformed the Home (or British) and the Local Indian Government made the changes now to be described. The President of the Board of Control became, with greatly enlarged powers, a “Secretary of State for India”, assisted by a Council of fifteen members, who represented in their own persons much of the knowledge and experience in Indian affairs that had been included in or commanded by the Court of Directors. The power of initiative, and the responsibility to Parliament, for the whole business of India, lay with the new Secretary. The first “Council of India” consisted of seven members elected by the

Court of Directors from their own body, and of eight nominated by the Crown. Future vacancies were filled up by the Secretary for India. The Indian, or Company's, navy ceased to exist, and the European troops of the Company, numbering about 24,000 officers and men, passed into the Queen's service. The "Governor-General" became a "Viceroy", with supreme power in India, assisted by an executive and a legislative council. The Company's Courts of Appeal in the Presidencies, or Sudder Courts, with judges chosen from the Civil Service, were amalgamated with the Supreme Courts, now styled High Courts of Judicature, whose Chief Justices go out from home on the nomination of the Crown. The Viceroy's Executive Council, generally composed of five official members besides the Viceroy and the Commander-in-chief in India, is like the Cabinet at home, meeting at brief regular intervals, and dividing among themselves the chief departments of public business, foreign affairs, finance, war, public works, &c. The Viceroy has at once the duties of a prime-minister and a constitutional sovereign, with special charge of the foreign department. The Legislative Council includes the members of the Executive, with the addition of the Governor of the Province, officials chosen by the Viceroy from other Provinces, and nominated members representing the non-official native and European communities. The meetings of the Legislative Council, usually held once a week, are open to the public, and draft-Bills, after being amended by the several Provincial governments concerned, are published a certain number of times in the official Gazette. The Presidencies of Bombay and Madras, Bengal (as a Lieutenant-Governorship), and the North-Western Provinces with Oudh, have also Provincial Legislative Councils, with members appointed by the Governors or Lieutenant-Governors, such nominations, like the legislation passed, being subject to the approval of the Viceroy. The "High Courts" of Justice exist in the Lieutenant-Governorships of Bengal, and the North-Western Provinces, and in the Presidencies of Madras and Bombay, with supreme jurisdiction both in civil and criminal affairs, subject only to an appeal to the Judicial Committee of the Privy Council in London. The puisne or assistant judges in these Courts are chosen in certain proportions from the Indian Civil Service and from the English or the local Bars, and include natives who have shown themselves to be highly competent for such work.

In the Punjab and in Oudh, there are "Chief Courts"; in the Central Provinces, and in Upper and Lower Burma, "Judicial Commissioners" have power. In Assam, there is a "Chief Commissioner" as judge, with appeal from him to the High Court at Calcutta.

The law administered in the Indian Courts consists chiefly of (1) enactments of Indian Legislative Councils, present and prior to 1858; (2) Acts of Parliament applying to India; (3) Hindu and Mohammedan laws of inheritance, and domestic law, in causes affecting Mohammedans and Hindus; (4) customary law affecting particular races and castes. The later period of British sway in India has been nobly distinguished by progress in the simplification and the lucid statement of law. No agency for good has been more powerful in British India than the administration of justice according to British ideas of veracity and equitable dealing. The morality of vast populations has thus been visibly improved. To this great advantage has now been added, through modern Codes, rare excellence in the form, comprehensiveness, and clearness of the law. These codes, of which the Penal Code has been already described, are wholly the product, except the Penal Code, of the time during which India has been governed by the Crown. The Codes of Criminal and Civil Procedure, and the Code of Substantive Civil Law, have almost completed the good work of enabling any man of fair intelligence who can read, to learn on any point in practical life the law by which his conduct should be guided and controlled.

A memorable event came to pass on November 1st, 1858, when "all the people, nations, and languages" of India received their Magna Charta from Queen Victoria. At a solemn *darbar* (Durbar, or state-reception) held at Allahabad, Lord Canning, the first Viceroy, published the Royal Proclamation, announcing that the Queen had assumed the government of the British territories. This grand document breathed a noble spirit of generosity, benevolence, and religious toleration. All existing dignities, rights, usages, and treaties were confirmed. The natives were assured that the British government had neither the right nor the desire to tamper with their religion or caste. An amnesty was accorded to all mutineers and rebels, save only those who should be proved to have taken a direct share in the murder of British subjects.

Translated into all the languages of the country, this proclamation was warmly and gratefully recognized by the general intelligence of the people. On July 8th, 1859, peace was proclaimed throughout India, and in the following cold season Canning made a vice-regal progress through the northern provinces. At a grand darbar held at Agra in November, where his dignified presence created a profound and ineffaceable impression, he received the homage of many loyal princes and chiefs, to whom, in his sovereign's name, he guaranteed the right of adopting a son who should succeed, on the failure of natural heirs, to the government of their several principalities. The question so hotly disputed in regard to the action, in several instances, of Lord Dalhousie, was thus finally settled.

The financial position had been greatly changed through the increase of the public debt of India by 40 millions sterling in the cost of suppressing the revolt, and the annual expenditure was augmented by about 10 millions in the charge due to military changes, whereby a far greater European force was maintained. Mr. James Wilson, a distinguished political economist and parliamentary financier, was sent out from England as Financial Member of Council, in which capacity, at the cost of his life amidst his arduous toils, he rendered eminent service. A State paper-currency was established, the customs-duties were settled on a new basis, and a licence-duty and an income-tax were imposed. It is impossible here to go far into the lengthy and complicated subject of Indian revenue. The most important sources are land, opium, salt, stamps, and excise. The present value of a rupee is about 1s., ten rupees thus making about 10s., or one-half of a pound. The following figures mean tens of rupees, and in the financial year 1894-95 land-revenue produced over 25 millions, opium-duty over 8 millions, the salt-duty above $8\frac{1}{2}$ millions, stamps nearly $4\frac{1}{2}$ millions, and excise over 5 millions. The civil salaries paid reached nearly $14\frac{1}{2}$ millions, the army cost above 25 millions. The whole expenditure (which includes the railway-account of nearly 21 millions against 19 millions received) reached over 94 millions against 95 millions of total revenue. The total debt, still in tens of rupees, amounts to over 230 millions. The land-tax is based upon the very ancient Eastern system of the State appropriating a share of the produce of the soil. Under

British rule, with its justice and stability, individual proprietary right in land has arisen, along with occupancy-right or fixity of tenure for the peasant-cultivators, and legal titles have been substituted for unwritten customs. The Government-share of the produce of the soil, paid in coin to the revenue-officers, a little exceeds 5 per cent, taking the average land-tax throughout India. Under native rule, the amount seized by the government varied from 33 to 60 per cent.

Like his illustrious predecessor Dalhousie, Lord Canning sacrificed his life in the faithful discharge of his arduous duties. Quitting India in March, 1862, he died on June 17th, before he had been a month in England, and was buried in Westminster Abbey. His title of earl, conferred in 1859, became extinct from lack of any surviving son. The second Viceroy of India was James Bruce, eighth Earl of Elgin in the peerage of Scotland, first Baron Elgin (1849) in the peerage of the United Kingdom, son of the Earl of Elgin who brought from Athens the famous sculptures in the British Museum known as the "Elgin Marbles". The new ruler, as we shall see hereafter, had displayed signal ability as Governor of Jamaica and Governor-General of Canada. His decision of character was finely shown when, in 1857, on his way to China as minister-plenipotentiary at the time of the Second Chinese War, he heard at Singapore of the outbreak of the Indian Mutiny, and promptly diverted to Lord Canning's aid the troops destined for China. His diplomatic services in China and Japan in 1858 and 1860 have been already noticed. During his brief term of office in India, trouble arose on the north-west frontier and in Bhutan, an independent state of the eastern Himalayas. In the north-west, the wild mountain-tribes of the Sulaiman range, running southwards from the Hindu Kush into Sind, renewed their raids on British territory in the Punjab. These ignorant, barbarous, blood-thirsty, and treacherous Mohammedan fanatics, with internecine blood-feuds amongst themselves, but ever ready to unite against foreigners, were the people against whom Lord Dalhousie established the Punjab Irregular Force. The special aggressors on this occasion were a sect of Mohammedan puritans, called Wahabis, who had migrated from Bengal about 1830, and settled some forty miles to the north of Attock, in the Sitana district. It was known that from time to time they received supplies of men and money

from disaffected Mohammedans at Patna, 1200 miles away, and it was thought well to give them a sharp chastisement. A force of 5000 men under General Sir Neville Chamberlain was sent to attack them by way of the Umbeyla Pass, lying on Afghan territory. The coming of the assailants was known, and the Wahabis obtained the aid of all the neighbouring tribes by the artful falsehood that the British infidels were coming to lay waste their country and subvert their religion. In the Umbeyla Pass, nine miles long, Chamberlain and his troops found themselves entrapped and surrounded by many thousands of men. It was impossible to advance without reinforcements, and almost hopeless to attempt to retire in face of swarming foes in front and on both flanks, while the rear was blocked by the mules, camels, and baggage of the invaders themselves. General Chamberlain was wounded, and at that moment the Viceroy, Lord Elgin, lay in a dying condition at the hill-station of Dharmsala in the Punjab. There he expired in November, 1863, and was buried in the churchyard. At this crisis, Sir Hugh Rose, the Commander-in-Chief, sent up reinforcements in hot haste from Lahore, and General Garvock, the successor of Chamberlain, with a force of 9000 men, routed all the opposing tribes in a brilliant little campaign.

After a brief tenure of power, as acting-Viceroy, by Sir William Denison, Governor of Madras, Sir John Lawrence was appointed third Viceroy. Born at Richmond, in Yorkshire, in 1811, son of Lieut.-Colonel Lawrence, who served at the storming of Seringapatam, he entered the civil service of the Company after a distinguished career at Haileybury. The early years of his official life were passed in magisterial and revenue duties in the North-West Provinces, where he acquired the experience and the knowledge of native character and needs which enabled him to obtain, as we have seen, such high distinction as ruler of the Punjab. His firm and beneficent sway won the respect and good-will of the conquered Sikhs. His prudent, prompt, and daring action on the outbreak of the Mutiny justly gained for him the glorious title of "Saviour of India". His despatch of reinforcements made him the real conqueror of Delhi. On his return to England, he received fitting rewards in the thanks of Parliament, a pension of £2000 a-year, a baronetcy, a seat in the Privy Council, and a knighthood in the new "Most Exalted Order of the Star of India", whose motto is

"Heaven's Light our Guide". His services had already won for him the Grand Cross of the Bath, and, on the death of Lord Elgin, his appointment to the vacant post received universal public approval. His five-years' tenure of office showed his accustomed wisdom and energy, and, in view of events to be hereafter dealt with, we may note that, in foreign policy, he was always opposed to British interference in Asia beyond the frontier at Peshawar, and, regardless of panic-mongers on the subject of Russia, he would have no intriguings in Afghan affairs.

The first duty of the new Viceroy was that of dealing with the Bhutanese, a barbarous people of Buddhist religion and utterly degraded character, living among the lofty mountains bounded on the north by Thibet, and on the south by Assam and Bengal. They had long given just offence to the Indian government by depredations committed on British subjects in the lowland district called the Dwars or passes, to the south. Many people were slain by these raiders, and many more were carried off as slaves. Sir William Denison, the acting-Viceroy at the close of 1863, sent the Hon. Ashley Eden on a mission to demand reparation. He was not only received with insult and defiance, but was forced to sign a treaty giving over to Bhutan the territory on which the outrages had been committed, and which they claimed as their own. Sir John Lawrence, who had arrived in India in January, 1864, at once repudiated this discreditable arrangement, and demanded the immediate restoration of all British subjects kidnapped during the past five years. On refusal, he proclaimed, in November, 1864, the annexation of the eleven western or Bengal Dwars. In January, 1865, after a seeming submission, the Bhutanese suddenly attacked our garrison at Diwangiri, in Assam, and the troops were forced to retire with the loss of two mountain-guns. Reinforcements under General Tombs soon put matters right, and the enemy were compelled to sue for peace, concluded in November, 1865. All the eighteen Dwars of Bengal and Assam were ceded to our rule; the captives were restored; and the Indian government, with the clemency of strength, agreed to pay an annual allowance, conditional on good behaviour, in lieu of the revenue, in the shape of rents, lost by the Bhutan rulers through our annexation of territory. Permanent peace and prosperity for the new and old British districts followed this settlement.

A very different foe was face to face with the Viceroy in 1866. This was the dreadful famine in Orissa, a province subject to drought as well as to inundation, both arising from want of due control over the water-supply. Abundance of rain (62 inches per annum) is the rule of the fertile deltaic land, but no storage was made against the day of need. When a rupee will buy but 21 lbs. of rice, it is held that a famine needing operations of relief is come. In April, 1866, rice was at 11 lbs. per rupee, and the poorer classes were in imminent danger of starvation. Prices continued to rise, and in July, in lack of rice, the people were resorting to the grasses in the fields for food. Relief-committees were started, and rice sent by the government from Bengal was distributed to the helpless and to those who were capable of labour on relief-works. Every effort was made to meet the terrible evil, and many thousands of pounds were expended. One government agent stated that, "for miles round you heard the yell of the famishing crowds for food". In August, heavy rains caused serious disease from cold and wet, and then all the low-lying country was flooded. In November, the crop of new rice began to come into the markets, and the dreadful famine abated, after having slain, with its concurrent disease, about one-fourth of a population of nearly 3 millions. In 1868-69 there were serious famines in Bundelkhand and Upper Hindustan, and these caused Sir John Lawrence, for the first time in Indian history, to establish the principle of making government officials personally responsible for using all possible efforts to prevent death by starvation.

The affairs of Afghanistan were forced upon the attention of the Indian Viceroy by the death of Dost Mahommed Khan in June, 1863, and by the advance of Russian power in Central Asia. That great European and Asiatic monarchy had pushed her troops beyond the Jaxartes and was approaching the Oxus. At the same time, the decease of the powerful Afghan ruler, who had remained firm to the British alliance since 1855, brought war between his sons for the succession to the throne. In the end, his younger son, Sher Ali, already recognized as Amir by Sir John Lawrence, obtained full possession of the country, and was propitiated by a gift of money and arms from the Indian government. In January, 1869, Sir John Lawrence resigned office, after filling every post of the Indian Civil Service from an assistant-magistracy upwards.

He returned to England, received a peerage as the well-earned reward of capacity and energy rarely equalled in modern days, and, after ten years' more good work, partly as chairman of the London School Board in its earliest days, he was buried in July, 1879, within the walls of Westminster Abbey.

The successor of Lord Lawrence was the Earl of Mayo, a statesman who, as Lord Naas, had been thrice Chief-Secretary of Ireland under Lord Derby as Premier. Head of the Bourkes of County Kildare, born in Dublin in 1822, he became a well-liked member of the House of Commons, and showed much capacity for public business in his Irish office, but his selection by Mr. Disraeli, in his first ministry, for the Viceregal office in India completely took the British world by surprise. Lord Mayo was destined to nobly fulfil the requirements of his great promotion and to prove, in his own case, his chief's keen insight as a judge of mankind. He rose in a short time to the height of his new position, and, under the ministry of his political opponent, Mr. Gladstone, worked in harmony with the new Secretary for India, the Duke of Argyll. The dignified, courtly, and charming demeanour of an Irish gentleman of the highest type won for him a social popularity in India which had not been attained by any recent ruler at Calcutta. As an administrator Lord Mayo showed admirable zeal and ability. He largely developed the railway and telegraph systems planned and commenced by Dalhousie. Education, commercial and mining enterprise, were greatly promoted. To him were due the creation of an Agricultural Department, and the introduction of a system of Provincial Finance which, in connection with local self-government, has been of great value in augmenting and thriftily employing the revenues of the country. Roads and canals, as well as railways, were vastly extended, and the Viceroy never tired of travelling through the land to see things with his own eyes, to study the people and their needs, and to win the friendship of native rulers and of men of every class by the uniform justice, kindness, and courtesy of his conduct and manners. In March, 1869, soon after his arrival in India, the new Viceroy received Sher Ali of Afghanistan in a grand *darbar* (Durbar) at Ambala (Umballa), north-west of Delhi, and by his conciliatory tone, and renewal of assurance that the British government regarded him as the rightful ruler of his country, he soothed the susceptibilities of a monarch who, as a

good judge expresses it, "had been chilled by the icy friendship of Sir John Lawrence". The importance of "manner" was never more signally shown in dealings with Oriental princes than when Lord Mayo, at the Umballa interview, won the heart of Sher Ali Khan.

The tragical end of Lord Mayo's most useful, honourable, and successful career as Viceroy, during three years' tenure of office, was a terrible shock to the public mind, and a real calamity to the Empire. After a brief visit to Lower Burma, the Viceroy and Lady Mayo, with the personal staff, steamed away to the Andaman Islands for inspection of the penal settlement. The steam frigate *Glasgow* lay off Port Blair, on the evening of February 8th, 1872, with Lady Mayo and her friends on board, awaiting the return of the Viceroy. Quickly fell the tropical dark, and, as the Viceroy, with torches borne aloft, descended Mount Harriet towards the landing-place where the state-launch lay with steam up, the long lines of lights on the *Glasgow* and the escorting squadron, the *Dacca*, *Nemesis*, and *Scotia*, glittered on the water. At the moment of Lord Mayo's stepping into the boat, a rush was made, a knife-armed hand rose and fell, and the Viceroy, stabbed twice in the back, fell over the pier into the water alongside. He staggered up, knee-deep in the water, cleared the hair from his brow in bewilderment, and cried to his secretary, Major Burne, who leapt down to his aid, "They've hit me!" and then to the people on the pier he said, "It is all right, I don't think I am much hurt." In two minutes he was dead, and so he was carried to the ship in the launch, which came alongside as the voices of the ladies were heard in merriment, waiting for dinner in the state-cabin. The scene which followed passes all description. The assassin was an Afghan convict, by a strange coincidence named Sher Ali, formerly in the Punjab mounted police, condemned to death for a murder at Peshawar, and then sent to the Andamans on a life-sentence of exile. He had dogged the steps of his victim all day, and up and down Mount Harriet, and got his chance when Lord Mayo, about to embark, stepped forward from among the suite who had closely surrounded his person. The murderer's motive was simply one of vengeance on the high official whose duty had caused him to sanction the punishment of crime. The Viceroy's body was brought back to Ireland and laid in a shady spot of the quiet little churchyard at

Palmerstown, near the family-seat on his Kildare estate. The place of burial had been chosen by himself when, in October 1868, he had made a farewell visit, and then left his home, as his diary relates, "amid tears and wailing, much leave-taking, and great sorrow".

Before passing away from Lord Mayo's administration, we may note the very important link of connection between Great Britain and her Indian Empire supplied in November, 1869, by the opening of the Suez Canal. The only warlike event was an expedition made in 1871 against the turbulent people in the Lushai Hills, a wild tract of country on the borders of Assam, Bengal, and Burma. The Lushais, feudally organized under hereditary chiefs, had committed, since the days of Warren Hastings, sanguinary raids on British territory, and in 1860, their invasion of the Bengal district of Tipperah ended in the massacre of nearly 200 villagers and the carrying off of 100 captives. After several futile expeditions made by small bodies of our forces in the very difficult country of the Lushais, that people, in January, 1871, attacked some British villages, killed a planter at the tea-garden of Alexandrapur, and carried off his daughter, Mary Winchester, as a hostage. Lord Mayo resolved on administering a lesson, and a strong expedition was prepared by the Commander-in-chief, Lord Napier of Magdala. In November, 1871, a little army of 2000 men, composed of Gurkha, Punjab, and Bengal infantry, with engineers and mountain-guns, entered the hills in two columns under Generals Bouchier and Brownlow, and, amidst great difficulties of ground in unexplored country and against strong resistance from a hardy enemy, they inflicted severe losses in the burning of villages, the slaying of hillsmen, and the destruction of stores of food. Many powerful chiefs were thus forced to submission, and above 100 British subjects were freed from captivity. Among these, little Mary Winchester, then nearly seven years old, was delivered up in January, 1872. She was a native of Elgin, and already long motherless when her father, in March, 1871, was shot by the Lushais as he ran off carrying her on his back. The pretty, affectionate, and intelligent child was sent back at the charge of the Indian government to her grandparents in Elgin. She would say nothing about the events of her nine months' captivity, but had a sad look whenever the Lushais were mentioned. The wild people seem to have

had a fondness for their little prisoner, whose curls were cut off by them before her restoration, as a memorial of her stay among them. The expedition was completely successful in its main object of causing the Lushais to abstain from aggressions in time to come.

On the assassination of Lord Mayo, the duties of government were assumed for a time by the skilled diplomatist, descendant of a famous and ancient Scottish family, Lord Napier of Merchistoun, then holding the post of Governor of Madras. The new Viceroy appointed by the Queen, on Mr. Gladstone's advice as Premier, was the experienced Whig official Thomas George Baring, second Lord Northbrook, who had served the country as a Lord of the Admiralty, as Under-Secretary for India, and in the same capacity at the War Office, a post which he had been holding since the end of 1868. He proved to be a hard-working ruler, able in administration, not given to viceregal pageants or tours, and specially devoted to financial measures. He promptly repealed the income-tax which, after abolition in 1844, had been reimposed in the English form that, from its complications, became obnoxious to the natives of India. In 1873, the failure of summer and autumn rains portended a famine, from lack of rice and other grains, in Lower Bengal and Behar. Mindful of the recent calamity in Orissa, the Viceroy and Sir George Campbell, Lieutenant-Governor of Bengal, took prompt measures to meet the threatened evil, and the Duke of Argyll, Secretary of State for India, gave them authority to incur any needful expenses. Vast quantities of rice and other native food were purchased, relief-works were established on a great scale, and in May, 1874, nearly three millions of persons were being supported by the government in the famine districts. The work of distribution was arranged and carried out with great ability and energy by Campbell and his successor Sir Richard Temple. Native landholders gave considerable help, and the civil servants of every rank were most zealous in fighting the terrible foe. So successful were the efforts made in this "glorious famine-campaign" of Lord Northbrook's that scarcely any more deaths from starvation occurred in the stricken districts than the number known in an ordinary season. In 1875, the Gaekwar of Baroda, a cruel tyrant who, after one stern warning from the Indian government concerning his barbarous misrule, still made sport of seeing his prisoners trampled to death by elephants, was dethroned and banished from

his country. This decision was reached by the Viceroy on the conclusion of that potentate's trial for attempts to poison Colonel Phayre, the British Resident. The evidence against him was not conclusive, and, after an able defence by the famous English barrister, Sergeant Ballantine, imported for the purpose at enormous cost, the special Court of Inquiry was divided in opinion. Lord Northbrook, however, carefully perused the evidence, and, coupling strong suspicion of guilt in this case with the notorious misgovernment of the Gaekwar, he placed on the throne of Baroda a young member of the ruling house.

The visit and tour of the Prince of Wales took place in the cold season of 1875-76, and the heir to the British throne found a warm and loyal welcome from the native princes who now fully realized the fact that, in their relations to the Indian government, they and their peoples were bound up with the Oriental interests and power of an European nation governed by an ancient and splendid dynasty. The pen of Dr. W. H. Russell, the famous *Times* correspondent, who accompanied the Prince as secretary, has fully detailed the incidents of a course of travel during which the royal tourist saw, to the greatest advantage, much of the best that India has to show. In the crowd of mental photographs then acquired by the Prince were the picturesque and gorgeous dress and ceremonial of Oriental state, with the quaint, strange customs of local and native-etiquette; the rock-hewn temples and the graceful or stately shrines and tombs and palaces of olden Hindu or Mohammedan work; combats between pairs of elephants, tigers, buffaloes, rhinoceroses, camels, and rams; the chasing of wild black deer by cheetahs or hunting leopards; the golden, jewelled treasures guarded by the priests of pagan gods; the shooting of elephants from a platform in the jungle, and of tigers from the howdah on the elephant's back; and the dances of girls in silken attire of divers hues, with wreaths of pearls round head and neck, rings of pearls passing through the nose, and jewelled bangles on ankle and wrist. The scenes of strife and death in the days of the great Mutiny were inspected at Cawnpore, Lucknow, and Delhi, and at Lahore the chiefs of the Punjab, men of martial faces and noble forms, with elephants and steeds in gold and silver trappings, and with bands of followers in splendid array of weapon, banner, and plume, made obeisance to the son of the great Queen beyond the seas amidst the blare of

trumpets, the roll of drums, and the clang of instruments strange to European eye and ear.

The usual term of office for an Indian Viceroy is five years, but early in 1876, after four years of service, Lord Northbrook, feeling the burden of his position and the effect of climate upon his health, resigned his high post, and was succeeded by Lord Lytton. The new Viceroy, known in literature as "Owen Meredith", was the son of Edward Bulwer, the first Lord Lytton, novelist, playwright, essayist, poet, and politician. Born in 1831, this ruler of British India had long served his country in diplomacy, and had been minister at the court of Lisbon. In April, 1876, he was sworn in at Calcutta, and then departed for residence at Simla. On November 1st, a great calamity befell the people of Backergunge (Bakarganj), a populous district, nearly half the size of Wales, on the coast of Bengal. The greatest cyclone, or circular hurricane, on record in that region suddenly brought on the eastern Sunderbunds a storm-wave so powerful and vast that three great and many smaller islands, with the coast for five miles inland, were instantly submerged, to the destruction of over 200,000 human beings. It was really just before midnight on October 31st, when the natives at rest in their little huts under the bamboos, amidst dense groves of cocoa-nut and palm planted round the villages, were awakened by the fearful scream of the tempest-wind sweeping in from the south-west. The land was about 20 feet above mid-tide, but the whirling wall of water rose far above the surface, and swept all buildings and people away. From the first dreadful sound till the recoil of the wave after its work of ruin barely thirty minutes passed. A few persons were saved by climbing trees which kept their hold in the ground. The Lieutenant-Governor of Bengal, Sir Richard Temple, was soon on the spot, with an active band of officials, and all possible help and relief were afforded to those survivors who had suffered the loss of cattle and crops.

On January 1st, 1877, at a magnificent *darbar* held at Delhi, the Queen was proclaimed by Lord Lytton as "Empress of India". There was a great attendance of native princes at the old Mogul capital, the Nizam of Haidarabad, the Maharajas of Cashmere and Mysore, and the young Gaekwar of Baroda being conspicuous for the splendour of the display of costumes in their own persons and their retinue. To each ruler was presented a banner bearing his

THE QUEEN BEING PROCLAIMED "EMPRESS OF INDIA" AT DELHI.

On January 1st, 1877, at a great *darbar* held in Delhi, Queen Victoria was proclaimed "Empress of India" with befitting pomp and ceremony. Lord Lytton was the Governor-General at that time, and in issuing the proclamation before the magnificent assemblage of native Princes he hoped that this new title might be the means of drawing closer the bonds of union between the government of Her Majesty and the great allies and feudatories of the Empire. It was an impressive scene. A hundred thousand persons, chiefly natives, were gathered in the vast plain outside the city, besides about fifteen thousand troops of the Indian army. With the sun shining upon this great assemblage clothed in every variety of brilliantly-coloured costume, it looked like an immense Eastern garden in full bloom. The memorable ceremonial concluded with the release of numerous prisoners and debtors, and by the lavish distribution to the poor of rupees bearing the words "Victoria, Empress".



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THE QUEEN BEING PROCLAIMED "EMPRESS OF INDIA" AT DELHI.

or her family insignia, embroidered in gold or silver on silk or satin, with a medal commemorative of the event. The Maharajas of Gwalior and Cashmere were appointed honorary generals of the British army, and, in Lord Lytton's words, it was hoped that the occasion would "be the means of drawing still closer the bonds of union between the government of Her Majesty and the great allies and feudatories of the Empire". No assemblage of princes so numerous and in such gorgeous array had ever occurred in India, and the scene was one of marvellous grandeur and gaiety when every variety of Eastern costume and colour was shown by a hundred thousand persons gathered in the old cantonment behind the historic "ridge" whence the siege had been conducted by the British troops in 1857. The vast plain resembled a garden covered with beds of brilliant flowers, and a bright sun gave full effect to every detail of hue and form. Fifteen thousand troops of the Indian army were ranged on the ground, in the perfection of modern equipment and discipline, while the retainers of the native princes showed all varieties of olden armament in scimitar and shield, matchlock and halbert, and artillery on the backs of camels equipped with red cloth and tinkling bells. Many new titles and distinctions, matters fully as dear to the Oriental mind as to the European, were accorded to native rulers, nobles, and civilians of distinguished merit, and the whole ceremonial observance concluded with a large release of prisoners and debtors, and with a lavish distribution to the poor of rupees bearing the new legend "Victoria, Empress".

The attention of the Viceroy was now called to far different affairs. The whole of southern India, from the Deccan to Cape Comorin, was threatened with famine. The rain had failed to come fully in both the monsoons of 1876, and early in November a territory nearly as large as England was devoid of crops. Large quantities of rice were sent from Orissa, but much trouble was caused in landing supplies at the mouths of the rivers Godavery and Kistnah, the deposit of which prevents vessels of any fair tonnage coming within six miles of the shore, and all cargoes needed to be taken off in open boats. Riots in the towns, and dacoity (robbery) in the country districts, were rife, and the most vigorous measures were required both for the repression of crime and for the relief of want. The season of 1877 was also very deficient in

rain, and the area of famine spread through the Bombay and Madras presidencies, and then to the north, until it reached nearly 260,000 square miles, with a population of nearly 60 millions directly affected. In spite of all efforts made under the direction of Sir Richard Temple, and an expenditure of 11 millions sterling for relief, this awful visitation caused a loss of life, from actual starvation and subsequent disease, that exceeded five millions. A "Famine Commission" of eminent Europeans and natives was appointed to visit the territory which had thus suffered, and inquire into the means of preventing such calamities in future.

In 1878, while the Russo-Turkish war was being waged in Europe and in Asia Minor, a restless feeling was aroused amongst the Mohammedans of India, and seditious and libellous articles began to appear in some of the newspapers printed in Oriental languages. Lord Lytton then caused the passing of the "Vernacular Press Act", as it was commonly called, to repress these utterances against native officials and the Indian government in general. The "Russian scare" at this time again arose in connection with the affairs of Afghanistan. After the Russian occupation of Khiva in 1873, Sher Ali, the Afghan Amir, became uneasy, and sent a special envoy to Lord Northbrook, requesting a close alliance and the aid of arms and money for defence. The Indian Viceroy promised aid under certain conditions, but expressed the opinion that at present there was no need for fear of Russia. The attitude of Sher Ali towards our government in India was changed, and early in 1877 he declined a proposal for a British mission to Cabul. In the autumn of 1878, an embassy from the Czar of Russia was received by him with every mark of honour and distinction, and Lord Beaconsfield resolved to force Sher Ali to admit a special envoy. Persistent refusal caused a declaration of war, and three columns of our troops invaded Afghanistan by the Khyber, Kuram, and Bolan passes. The enemy were defeated in battle after battle, and the Amir fled to Turkestan, where he died early in the following year. His son, Yakub Khan, after the occupation of Kandahar by General Stewart, and some vigorous proceedings of General Roberts, concluded the Treaty of Gundamuk in May, 1879, agreeing to receive a resident British minister at Cabul, and to follow British advice in foreign affairs. In return for these concessions, the Indian government undertook to pay an annual sub-

sidy of £60,000, and to defend Afghanistan against attack from abroad. Sir Louis Napoleon Cavagnari, an officer of high merit, son of an Italian who had been a devoted friend of the second Emperor of the French, became our minister at Cabul, with Mr. Jenkyns of the Bengal Civil Service as secretary, Dr. Kelly as the Residency-surgeon, and an escort of about 80 men, chiefly Sepoys, under the command of Lieutenant Hamilton. Within a month of their arrival, all were massacred, after a desperate resistance, in a rising of the bigoted and mutinous Afghan soldiery.

The tragical event of September 3rd, 1879, was known two days later at Simla, and the Viceroy at once sent forward the troops at the Khyber Pass and Peshawar under the command of General Sir Frederick Roberts. The Afghans were routed in the battle of Charasiab, opening the road to Cabul, which was entered on October 12th. Martial law was proclaimed; persons guilty in the massacre were executed; the Amir, Yakub Khan, abdicated, and was sent a prisoner to India. A rebellion arose outside the capital through the preaching of a Jihad, or religious war, at Ghazni (Ghuznee), and large Afghan forces were again in the field. In March, 1880, the enemy were utterly defeated at Ghazni by General Stewart, and then another foe appeared on the scene. This was the able and energetic Ayub Khan, a son of Sher Ali, who claimed the throne from a grandson of Dost Mahommed, Abdur Rahman Khan, who had been admitted as Amir by the British government. Ayub Khan advanced with an army from Herat, and on July 27th almost destroyed a British force of 2500 men, Europeans and Sepoys, under General Burrows. The famous battle of Maiwand was fought near a village and pass of that name about fifty miles north-west of Kandahar, whence General Primrose, ignorant of the enemy's strength, had sent forth the detachment. Ayub Khan had 12,000 men, with 36 guns well equipped and well served. The fire of the twelve British cannon was overwhelmed, and a charge of thousands of the fanatical Ghazis, keen sabre in hand, captured two guns, and drove the Sepoys in disorder on the only British troops present, 406 men and 19 officers of the 66th or "Old Berkshire" regiment. Of these, 10 officers and 275 men were killed. One noble incident of the desperate struggle was the resistance made by 100 officers and men of the 66th, surrounded in a garden by countless foes. Hundreds of the

enemy were shot down by the breech-loaders, but at last only eleven British heroes were left standing, and these men charged out of the inclosure and died, back to back, facing the Ghazis whom their resolute demeanour daunted and deterred from a close approach. One by one the British succumbed to bullets, while, in the hasty retreat to Kandahar, the surviving Sepoys fell by hundreds under the knives and shot of the Afghan villagers and hillmen.

Then came the brilliant historical march of Roberts. At this critical juncture, while swarms of exulting enemies hemmed in Primrose and his small force, and people at home were filled with anger and dismay, a bold stroke was being devised at Cabul. On August 8th, General Roberts went forth with about 10,000 men, including 2500 Europeans and about 270 British officers, with 18 mountain-guns. The smallest possible quantity of baggage was taken, but the desertion of the native drivers soon caused additional fatigue for the troops. Nothing, however, could cool the zeal of the marchers, among whom were brave and faithful Sikhs, and many of the loyal, lithe, and active Ghurkhas. The weather, happily, was fine, and food was found in the green Indian corn growing in patches among the hills. The British general, in this advance, plunged into darkness and silence for over three weeks. Not a word of news reached India or Great Britain as he made his way through the pathless regions between Cabul and Kandahar. On August 16th, Ghazni, 98 miles on the road, was reached; on the 23rd, the army was at Kilat Ghilzi, 134 miles from Ghazni. A day or two of rest were given here on receipt of news from Kandahar that Ayub Khan's beleaguering army had retired from before the city. On August 31st Roberts and his men joined General Primrose, after traversing 318 miles in 23 days. On September 1st Ayub Khan was attacked in his position north-west of the town and completely defeated with the loss of all his artillery and the re-capture of the two guns taken from General Burrows at Maiwand. Before these events, a change of rulers had come to pass in India, but we may here note that the British troops were withdrawn from Afghanistan, and that, after more warfare between the two rivals, Abdur Rahman became undisputed Amir, friendly to British interests, and further secured, in 1883, by our undertaking to pay a yearly subsidy of £120,000.

In April, 1880, Lord Lytton resigned his office along with the

ministry of Lord Beaconsfield, and was succeeded by the Marquess of Ripon. The new Viceroy was son of the first Earl of Ripon who, as Viscount Goderich, was prime-minister from August 1827 to January 1828. Born in 1827, and succeeding to his father's title in 1859, Lord Ripon served in various Liberal administrations as Under-Secretary and Secretary both for War and for India, and was created Marquess in 1871 for his services at Washington as Commissioner concerning the *Alabama* claims and other matters in dispute between the United States and Great Britain. The four years of his Indian administration form a peaceful period, apart from the Afghan warfare just described, of very important and beneficial reforms in the internal government of the vast territories committed to his charge. We may note, by the way, that in 1881 the government of the Native State of Mysore, which had been for fifty years in British hands, was transferred to the Maharaja who belonged, by adoption, to the hereditary native dynasty. In 1882 the policy of the previous Viceroy was reversed in the repeal of the Vernacular Press Act, setting the native journals free from the last restraints on the free discussion of public questions. The development of local self-government through municipal institutions was a main feature of Lord Ripon's reforming work. He proclaimed that "self-help varied in aim, local in colouring" was to be the basis of his system of government. Members of the Financial and Public Works Boards visited the various provinces and conferred with the local authorities on the measures to be adopted for the promotion of native enterprise in the use of local resources on the creation of beneficial public works. A number of enactments increased the powers of the local authorities in the towns and the country-districts, and the number of members chosen by popular election was augmented. Many new local boards were created among the rural population, and every effort was made to foster in the native mind the principle of local administration on a representative basis. The liberality of the Viceroy's policy towards the natives aroused in one instance the keen resentment of the resident Anglo-Indians. The "Ilbert Bill" was the popular name, from its introduction by Mr. Ilbert, of the famous Bill for amending Criminal Procedure in the rural courts presided over by native officials of the Civil Service who had reached the position of District Magistrates and Sessions Judges. The new measure proposed

to subject Europeans to the jurisdiction of native magistrates, and British pride and prejudice were bitterly offended. A wordy war in the columns of the press showed the native newspapers all in favour of the Viceroy, while European editors strongly denounced his proposed departure from the "tradition of the elders" in Indian affairs, assigning an equally undefinable and unquestionable superiority to white men over the native races. The British provincial governments were almost all opposed to the Bill in its original form, and the result of long and acrimonious discussion was a compromise giving the proposed jurisdiction to native magistrates only after special proofs of competence, and also affording to European offenders the right of appeal from a native magistrate to an European. Europeans were also allowed to claim a trial by jury in most cases coming before District criminal courts.

In agricultural affairs, so deeply important to the native population, the Indian government of Lord Ripon made its greatest mark. We have seen that Lord Mayo instituted an Agricultural Department of administration, but his sudden death came before it was fully developed, and its duties had been afterwards shared between the Home and the Finance Departments. The original idea of Lord Mayo was, between 1881 and 1884, carried into operation in a refounded Department of Revenue and Agriculture. Its great charge was that of developing in every possible way the agricultural resources of the Indian empire, and guarding the natives from all mischiefs connected with the tillage of the soil. The surveying of the land for new and more just and accurate assessments; the superintendence of coolie-emigration; the supply of information on all topics connected with tillage and the care of cattle; the measures to be taken for the prevention and relief of famine, were all entrusted to the new board or secretariat of the Indian government. The recommendations of the Famine Commission were fully considered, and a Famine Fund was formed by the setting-apart of revenue sufficient to provide an annual sum of a million and a half sterling for the creation of preventive irrigation-works and the relief of the destitute in seasons of scarcity. In regard to the land-revenue, cultivators were protected by provision that any increase of income from this source should be mainly derived from a rise of prices, or from improvements made at the expense of the Government, or from an increase of area under tillage. Landlords

and tenants alike were secured against the loss of any profits arising from improvements effected at their own cost. The Bengal Tenancy Bill, finally passed in 1885 under the next Viceroy, was mainly the work of Lord Ripon's government. This important and beneficent measure dealt with the interests of the landlords and tenants in Lower Bengal. The zemindars (landlords) received further facilities for recovering arrears of rent; the ryots (cultivators) had henceforth the transferable interest in their holdings and the "compensation for disturbance" in case of eviction, which have become so familiar to British ears in connection with the endless subject of Irish land.

We must here pay a just tribute to the memory of an eminent native statesman, Sir Salar Jung, member of a family of high rank which for more than a century and a half furnished chief ministers to the state of Haidarabad. Born in 1829, Salar Jung, in 1853, succeeded his uncle in the highest office under the Nizam, and completely reformed the disorganized administration of the country. A mutinous army was reduced to obedience; gangs of robbers were suppressed; irrigation and education received due regard. In 1857, the minister, against the will of the people of the state, remained faithful to British interests, and his sudden death from cholera, in February, 1883, after thirty years of strong and sagacious rule as chief minister and, since 1869, as co-regent of Haidarabad, was officially noticed by the "Governor-General in Council", through a *Gazette Extraordinary*, as that of "an enlightened and experienced friend of the British Government". His merits were fitly recognized in 1871 by installation as a Knight Grand Commander of the Star of India, and, when he visited England five years later, by the freedom of the City of London and the degree of D.C.L. conferred by the University of Oxford. Among the financial reforms effected under Lord Ripon by Sir Evelyn Baring, the Minister in that department, we find the abolition of import-duties on cotton goods and all other articles except alcoholic liquors, arms, and ammunition. In December, 1883, the first International Exhibition ever held in India was opened by the Viceroy at Calcutta, in presence of the Duke and Duchess of Connaught, and of a great company of distinguished Europeans and natives. The extension of popular education which followed the appointment, by Lord Ripon, of a Commission headed by Dr., afterwards Sir William Wilson Hunter,

K.C.S.I., the eminent Civil Servant and writer on Indian affairs, is noticed in a later chapter of this work. At the close of 1884, the enlightened and energetic Viceroy retired from his post amid enthusiastic expressions of gratitude and good-will from the native population of India, who recognized the value of the measures by which Lord Ripon had endeavoured to effect a closer union between the Indian Government and the great body of the Queen's Oriental subjects, and to spread material and moral benefit throughout the country by encouraging and aiding the people in managing their own affairs.

The next Indian Viceroy was the Earl of Dufferin. This brilliant and gifted Irish peer, born in 1826, won literary fame in 1859 by his charming *Letters from High Latitudes*. After serving two years (1864-66) as Under-Secretary for India, he became in 1872 Governor-General of Canada, where he acquired great popularity and credit, as we shall see in another place. Lord Dufferin next became Ambassador at St. Petersburg (1879-81) and at Constantinople, and did good work in Egypt in reforming the government of that country after Arabi Pasha's rebellion. His term of office in India, of four years' duration, was chiefly notable in connection with Russia and with Burma, the history of the latter being given later on. The continued advance of the northern European power in central Asia, especially towards the Afghan territories, had already, before Lord Dufferin's arrival in India early in 1885, excited the lively interest of the British government both at home and at Calcutta. The capture of Merv early in 1884, the cession of Sarakhs by Persia, and the movement of Russian troops towards Herat, caused the appointment, in the autumn of 1884, of a mixed Anglo-Russian Commission for the marking-out of a frontier as the northern limit of Afghanistan. In December, the English representative, General Sir Peter Lumsden, with other diplomatic officials, survey-officers, and an escort of troops, arrived on the scene, only to find that no Russian commissioner was there to meet them. The Russian government, seeking to gain time, then proposed that the question should be discussed and settled in London. On March 30th, 1885, an attack was made by Russian troops, under General Alikhanoff, on Afghan forces stationed at Penjdeh, on their own territory. The rude weapons of the assailed were no match for breech-loaders, and the soldiers of Abdur Rahman, who

had remained on friendly terms with the British government, were slaughtered in heaps and driven away. This perfidious, cowardly, and, in every point, disgraceful outrage was perpetrated at the very time when the Amir was the guest of the new Viceroy at Rawal Pindi, in the Punjab. There can be little doubt that the massacre was due to Russian resentment for Abdur Rahman's friendly relations with Great Britain, and the insult to this country was such as to provoke public indignation which threatened to end in a declaration of war. A large vote of credit was obtained from the House of Commons, and certain preparations for a conflict were set afoot both in India and in England. Meanwhile, Mr. Gladstone's government, acting through Lord Granville as Foreign Secretary, sought explanations from Russia, enabling her diplomatists to cavil at the version of the Penjdeh affair given by Sir Peter Lumsden, and to bring about a compromise in place of a war. The Boundary Commission was set to work, with Colonel Ridgeway as chief British representative in place of Lumsden, and, after some concessions by Russia to Afghan claims, a new frontier was marked out in 1887 so as to clearly decide where Russian territory ends.

The critical position of affairs after the conflict at Penjdeh was very serviceable to the Indian government in affording the most striking and gratifying proofs of loyalty on the part of native rulers and peoples. The princes came forward with the utmost enthusiasm, offering aid in money and men. There were some who were for placing the whole of their forces under direct British control. Others desired leave to pay the whole expenses of their troops while they fought with the Indian army against Russia. Where soldiers were not offered, stores of food and the means of transport were placed at the disposal of the Government, and in some of the British Provinces influential and friendly natives were proposing to raise bodies of volunteers. This spontaneous display of devotion was such as to make it clear that the people in India who have most to lose are not inclined to exchange British for Russian sway. In the following year, 1886, the fortress of Gwalior, occupied by British forces in 1858 after the revolt of the Contingent, was restored to the Maharaja Sindhia in token of good-will and friendship on the part of the Government. In 1887 the Queen's Jubilee was celebrated throughout her dominions in India with the most loyal demonstrations, accompanied by the despatch of gorgeous and

costly presents. The day chosen for this purpose, having regard to the climate, was February 16th, in the cool season, and on June 21st the Maharaja Holkar of Indore and other princes and representatives of the chief native rulers were thus able to be present at the grand ceremonial service in Westminster Abbey. On June 30th, the Queen received their personal congratulations and addresses, with deputations from many native states, at Windsor, where a guard of honour was composed of Hindu and Mohammedan officers of the Indian army. On July 4th the foundation-stone of the Imperial Institute in London was laid by the Queen in presence of the most distinguished of her Indian visitors.

At the close of 1888, with the title of Marquess of Dufferin and Ava, in the peerage of the United Kingdom, the latter part of this designation marking the success of British arms in Burma, the Viceroy made way for the Marquess of Lansdowne. The new ruler, fifth of his title, born in 1845, was grandson of the Whig statesman who, as Lord Henry Petty, succeeded William Pitt, on his death, both as M.P. for Cambridge University and as Chancellor of the Exchequer, and, after taking an active part in favour of the Reform Bill carried in 1832, became a most influential Whig leader, the patriarch of the House of Lords, a Mæcenas in his appreciation of literary men of high merit, the refuser of a dukedom and two offers of the premiership, and the warm personal friend of his sovereign. The Viceroy of India had served under Mr. Gladstone as Under-Secretary both for India and for War, and we shall hereafter see him as filling, from 1883 to 1888, the high office of Governor-General in Canada. During his term of office in India, from 1888 to 1893, much advance was made in the development of local government through the action of Municipal Councils and District Boards on the lines laid down by Lord Ripon. The ability and public spirit of many native gentlemen, freely chosen by their fellow-citizens, have thus been called into operation on behalf of the community. This fact alone shows the vast progress made, since the days of the Sepoy Mutiny and the change of government, in the creation of a new India, wherein the ruling powers and the most enlightened of the native subjects are striving to plant and foster, with due adaptations to a foreign soil, the institutions of Western civilization. The native mind is, in fact, running in advance of the most zealous British advocates of reform. In 1886,

an annual "National Congress" began to sit each December in one of the great towns of the empire. The resolutions there passed aim at the increase of power for the native element through the election, instead of the government-nomination, of members for the various Legislative Councils. A scheme for popular elections, on a large scale, to these bodies was propounded in 1890, but it was generally recognized, both at home and in India, that such methods are still far in advance of the social condition of the mass of the people. Two years later, however, the statute known as Lord Cross' Act, from a former Chief Secretary for India, partly met the desires of the advanced section in the National Congress by increasing the number of members in the Legislative Councils, strengthening the non-official element, and allowing the Provincial Governments in India to provide, according to the special needs and circumstances of their spheres of action, for the introduction and extension of an elective system. Among the most recent social reforms carried out in part, or strongly advocated by the best friends of the natives of India, have been the education of native women in medicine as practitioners for their own sex in a country where custom debars them from consulting male doctors or resorting to a hospital, and the abolition of the evils of enforced celibacy for Hindu women and of the early marriage of native girls. Early in 1894, Lord Lansdowne was succeeded as Viceroy by the Earl of Elgin and Kincardine, son of the former Viceroy. The new ruler, educated at Eton and at Balliol College, Oxford, had been a University Commissioner for Scotland, Treasurer of the Household, and Commissioner of Works.

Early in 1895, trouble arose in connection with Chitral, a dependency of Kashmir, and one of the gateways of India on the north-west, only 50 miles south of Russian territory on the upper waters of the Oxus. The ruler of the territory was murdered by his brother, and then power was assumed by a neighbouring chieftain to whom the Indian government, representing the Queen as suzerain of Chitral, gave notice to quit. British officers and troops, escorting ammunition to our Agent at Chitral, Dr. Robertson, were then treacherously attacked, with loss in killed, wounded, and prisoners. Umra Khan, the intruding chieftain, put to death the Hindu and Sikh sepoys who refused conversion to Islam, and the British officers were kept prisoners. On April 1st an expedition

of 15,000 men crossed the frontier under the command of Lieut.-General Sir Robert Low, an Indian cavalry officer of much experience, who had served under Roberts in Afghanistan. The difficulties of frontier-warfare in India are illustrated by the facts that the route lay through pathless mountains, producing little but brave and hardy foes, and that it was needful, for purposes of transport and other service, to have with the army as many camp-followers as fighting-men, with nearly 10,000 camels, over 7300 bullocks, more than 5000 mules, above 4600 donkeys, and 3500 ponies. The British troops included the Royal Rifles, the Gordon and Seaforth Highlanders and Scottish Borderers, the Bedfordshire and East Lancashire regiments, and the Buffs. They were supported by Bengal Lancers and Sappers, Bengal, Sikh, and Gurkha infantry, and mountain-batteries. The Malakand Pass was forced by Sikhs and Guides against hillmen holding sangars or breastworks of loose stone, and by some of the Scottish and other regiments climbing the steepest ground, and freely using the bayonet. The road was thus opened, with a loss of about seventy officers and men in killed and wounded, into the valley of the Swat river. On the march due northwards for Chitral like fighting occurred. The Swat, shoulder-high for horses, was forded. Colonel Battye, a gallant soldier commanding a regiment of Guides (Sepoys), was killed during the advance. The losses of the enemy caused Umra Khan, on April 16th, to send in the two British officers whom he had taken, asking for terms. General Low, however, still marched ahead, entered the chieftain's abandoned fort, and then pushed his men onwards for Chitral, where a beleaguered garrison, with Dr. Robertson, was in great straits; but the place had been relieved, meanwhile, by a column under Colonel Kelly, marching from the east up the banks of the Gilgit river, and coming down from the north on Chitral. A most gallant defence of the fort had been made by its garrison of 370 men, composed of 90 Sikhs and of Kashmir Imperial Service Rifles, all commanded by Captains Campbell, Townshend, and Baird, with Lieutenants Harley and Gurdon. Mining and counter-mining were employed during the siege of forty-six days, one-fifth of the garrison being killed and wounded. Sher Afzul, one of our chief enemies, was taken prisoner and given up to us by the friendly Khan of Dir. The country up to Chitral was then annexed.

Yet the tribes in this neighbourhood were never quite satisfied with this settlement, and in July and August, 1897, further heavy fighting occurred in the Swat valley, ending in the defeat of large forces of the tribesmen gathered by a religious fanatic, preaching a Jihad or "holy war". A splendid defence of an important post called Chakdara was made at this time by two companies of Sikhs and twenty-five troopers of the Bengal Lancers, under Lieutenants Rattray and Wheatley, afterwards joined by Captains Wright and Baker with forty-two troopers of the same Bengal regiment. The fort was much undermanned, and a close investment was kept up by large numbers of tribesmen. Every assault was repulsed, but all the communications inside the fort were swept by a rain of bullets. It was only Maxims and a nine-pounder gun that kept the enemy at bay until the arrival of the cavalry of a relieving force. It is estimated that the enemy lost nearly 3000 men during the siege and in the attempt to intercept the relieving force.

After this success the tribesmen in the Lower Swat Valley submitted unconditionally to British authority. Then Sir Bindon Blood marched from Malakand with a strong force against the rebellious tribes in the upper part of the country. He found the enemy, about 3000 strong, occupying the heights in a strong position above the village of Jalala, and about two miles from Landikai. The road to the latter village lies along a narrow causeway between the Swat river and the cliffs, and was commanded by stone sangars erected by the enemy. In attacking this position the mountain battery did great execution at a range of 1600 yards, and by a well-planned flank movement the ridges were swept clear of the enemy, so that, eventually, they broke and fled. The Guides cavalry in following the fugitives into the plain beyond Landikai suffered severely from the fire of a portion of the enemy who had retreated across heavy ground intersected by nullahs. It was here that Lieutenants M'Lean and Greaves were killed, while Captain Palmer, Colonel Adams, and Lord Fincastle had their horses shot under them while they heroically defended themselves in this difficult position; Lord Fincastle especially displayed great gallantry in bringing away the body of Lieutenant M'Lean. This defeat, and the capture of a position which they deemed impregnable, broke the spirit of the tribesmen, and in a

few days General Blood received the formal submission of the tribes in the Upper Swat Valley.

Meanwhile the two most powerful tribes on the frontier, the Afridis and the Orakzais, had been roused by the fanatical "mullahs" to rebel against British authority. Having mustered their fighting-men the Afridis suddenly attacked the British outposts at Landi Kotal, Ali Mesjid, and Fort Maude, all of which are situated in the Khaiber Pass. These outposts were held by native levies, who, after a slight resistance either submitted or fled. The Orakzais attacked our outposts on the Samana Range, but with less success. In order to check these daring acts of rebellion the Government found it necessary to prepare a powerful punitive expedition. The command was given to Sir William Lockhart, and the troops, to the number of 30,000, marched from Peshawar into the enemy's country. The advance was made through a difficult mountainous district, where the tribesmen had built sangars or breast-works on the heights commanding the passes. The first severe fight was at the Chagru Kotal, where the enemy were strongly posted in the village of Dargai. The position was captured after a stiff climb and heavy fighting, but our forces, unfortunately, returned to camp that night, leaving the heights in possession of the tribesmen. Two days afterwards (20th October) the Dargai position had to be retaken from an enemy who had meanwhile been strongly reinforced, and whose numbers were estimated at 8000. The Gurkhas led the advance, and suffered severely when they reached a zigzag path, swept by the enemy's concentrated fire, under an almost perpendicular cliff. One notable thing in this campaign was the accurate rifle-fire of the tribesmen, and in this case they had got the exact range. Three companies of the Goorkhas managed to climb the zigzag path and cross this zone of fire, which was about 50 yards wide, but the Dorsetshire Regiment in attempting to support them was checked. The state of affairs was serious. At this point in the assault, however, the Gordon Highlanders were brought to the front and commanded to rush the position with fixed bayonets. "Men of the Gordon Highlanders", said Colonel Mathias, "the General says that position must be taken at all costs. The Gordon Highlanders will take it." This they did in right gallant style, supported by the concentrated fire of 18 pieces

of artillery, and joined the Gurkhas who were lying under cover of the cliff. They were followed in this rush by the 3rd Sikhs and other troops. Then, after a pause to gather breath, the combined force mounted the heights and drove the enemy before them. In making their famous charge the Gordon Highlanders were led by the regimental pipers, and in crossing the zone of fire one of them was shot through both ankles. Nevertheless he continued piping, sitting on the ground where he fell amid a perfect hail-storm of bullets. Another case of signal bravery was when Captain Robinson, of the Gurkhas, first led his men across the fire-swept zone and then, finding that the force already across was insufficient, returned coolly for more troops. He was wounded while leading the second rush. The losses of our troops, in killed and wounded, were severe, but this defeat broke the spirit of the tribesmen, who lost about 1000 men, so that the expedition reached Tirah, the head-quarters of the Afridis, after comparatively slight resistance. Arrived there, Sir William Lockhart dictated the terms of surrender.

In 1896-97 a terrible famine, due to drought, occurred in north-west and central India. The usual energetic measures were taken in the distribution of food and the establishment of relief-works, and British charity, through a "Lord Mayor's Fund", subscribed about £540,000 for the aid of sufferers. In June, 1897, an earthquake of unusual severity for India did much damage in Calcutta, and caused serious loss of life and property in Assam. In 1896-97, some thousands of deaths occurred in and near Bombay from an attack of "plague".

In concluding the history of British India, apart from Burma and Assam, down to the present time, we may note the means of defence against external and internal foes now provided by her rulers. It becomes yearly of greater importance that in that quarter of our vast Empire we should be really and evidently strong. We have to deal with and to govern, not the ancient India, which was, in Sir William Hunter's words, a mere dealer in curiosities, nor the India of the Company, which was a retail-trader in luxuries, but with a new India which is a wholesale producer of staples, with an enormous export of the grain which feeds and of the fibres that clothe distant nations. The very growth in prosperity and power has brought with it new difficulties and dangers. Among the

many ceaseless labours of our administration we have, by the educational system, created a kind of aristocracy of intellect entirely after our own model in the persons of many thousands of rising young men, whose studies have been carried on at our schools and colleges, and in the pages of our class-books, and who have adopted British views as to the ends of government and the principles of legislation and of public life. They are yearly asking for and obtaining a larger share of influence and of power, and we are, in the policy of all the later Viceroy's, more and more governing the peoples of India, not only for themselves, but by themselves. Our position in regard to the native subject-population, or the internal difficulty, lies in the necessity, as matters exist at present, of combining perfect tolerance in religious affairs, and respect for a free press and a free right of public meeting, and an educational system ever producing better results, with a system of administration which is in many respects, as will be seen, practically despotic. The solid foundation of our power lies in the justice and beneficence of a rule which should win the ever-growing confidence of the natives in the advantages of living under British control. At the same time, since the mere suspicion of weakness would endanger the security of the whole fabric of our dominion, it is imperatively necessary to be strong in the material and moral force of military strength. The external danger lies in the advance of our borders to meet the approaches of an aggressive and unscrupulous European and Asiatic Power. It is within the last few years that, mainly under the auspices of Sir Frederick, now Lord, Roberts as commander-in-chief in India, a new departure has been made in military affairs. That distinguished soldier, born at Cawnpore in 1832, son of an Indian officer, General Sir Abraham Roberts, and educated at Eton, Sandhurst, and Addiscombe, entered the Bengal Artillery in 1851, and did good service during the Mutiny in most of the great events, including the siege and assault of Delhi and the relief and the final capture of Lucknow. His Victoria Cross was won by the pursuit of two Sepoys who were hurrying off with a captured colour, which he tore from their grasp at the cost of both their lives. He served in the Abyssinian expedition of 1868, and in the Lushai warfare of 1871-72, winning his chief military renown, as we lately saw, in the Afghan contest of 1879-80. After commanding the Madras army for four years, Roberts at-

tained in 1885 the highest military post in India, and was then enabled to render perhaps the most valuable services of his whole career, extending, on his return to England in 1893, over more than forty-one years. In dealing with the now completed work of strengthening the North-western frontier against possible invaders, we must not fail to give due credit to Lord Roberts' predecessor in the chief command, Sir Donald Stewart, who sketched out a great plan of defence, to which his successor made important additions of his own devising. The British frontier has been advanced to the crests of the passes leading from Afghanistan towards our territory, and in the opinion of military experts the whole north-west has been made impregnable by the line of forts and fortified posts, and the military and strategic railways, constructed in carrying out the elaborate scheme for repelling aggression in that vital point. Only a great European army, dragging behind it the heaviest of modern artillery, could venture to approach one of the formidable strongholds that confront invaders coming from that quarter. When we turn to the new means of safety provided against internal troubles, we find that throughout the territory of Bengal and Madras fortified posts have been created as places of refuge for the European population in the event of a native rising. If such fastnesses had existed in 1857, the Sepoy revolt would probably have been quelled within a few weeks, and our Indian records would have been devoid of the atrocious massacres and avenging scenes of that tragical time. The British garrison of India has been augmented by more than ten thousand men, permitting a large increase of our native troops, and thus making India ready for defence against a first-class European Power. Apart from the re-organization of our own native army effected before and during the administration of Lord Roberts, an important advance has been made in the development of new elements of defence. We saw how, in 1885, when war with Russia seemed to be at hand, many of the native princes made the most loyal offers of aid. Under the civil and military rule of Lords Lansdowne and Roberts, this spirit was turned to good and permanent account. A carefully planned system of Imperial Contingents was organized and initiated, and many of the feudatory rulers now maintain, at their own cost, bodies of troops no longer equipped in antique and useless fashion, but carefully armed and trained into fitness to fight beside British

troops in time of need. Lastly, Lord Roberts, affectionately known among the privates as "Bobs", proved himself at once the soldier's and his country's friend in the excellent provisions made for the physical and moral benefit of the men. The troops serving in India are now clad suitably for the climate and for their work; their rations have been improved, and they enjoy many minor comforts which promote their efficiency by rendering them more contented with the service. Institutes, reading-rooms, recreation-grounds, and gardens provided for their use powerfully aid the cause of temperance which, under the zealous advocacy and efforts of civilian and military reformers, now shows under the colours in India many thousands of total abstainers, men whose names rarely appear on the punishment-rolls of their regiments.

The total strength of the European army, exclusive of native artificers and followers, for the year 1896-7, was 74,000 officers and men, composed of over 13,000 Royal Artillery, manning over 60 batteries of field-guns, besides mountain- and garrison-pieces; about 5600 Cavalry, 340 Royal Engineers, nearly 54,000 Infantry, and over 800 staff-officers. The regular Native Army consists of about 4500 artillery, 23,000 cavalry, nearly 4000 sappers and miners, and about 114,000 infantry. The European officers of this force number 1580, the native officers being about 2760. The entire European and native army thus amounts to about 220,000 men. It is well to note the great change, since the days of the Mutiny, in the proportion of European to native troops. In 1856, there were 40,000 British soldiers and 215,000 natives; there are now 74,000 British and 145,000 natives; in other words, the preponderance of the native element has been reduced from over 5 to 1 to less than 2 to 1. The effective strength both of the European troops against internal foes and of the combined armies, British and native, against foreign adversaries, has been vastly increased by the creation of railways, affording the means of rapid concentration and movement, and by the institution of a regular transport-service with an organization for supplying animal-carriage, hospital-servants, and other requisites for an army in the field. The improvement in the health of our soldiers in India through sanitary care has been such that the death-rate has been reduced from nearly 7 per cent in 1856 to a little over $1\frac{1}{2}$ per cent. The European military strength is augmented by the existence of over 20,000

“efficient” Volunteers. The special contingents, or “Imperial Service” troops, of the native princes as above mentioned now number nearly 18,000 men, regularly inspected by British officers, by far the largest force, 4400 men, being furnished by Kashmir (Cashmere), while the contingents of Patiala, Alwar, Bhartpur, and Jaipur average 1500, and Gwalior, Jodhpur, and Mysore each supply 1200 men.

CHAPTER VII.

BRITISH POSSESSIONS IN ASIA—*Continued.*

INDIA: PHYSICAL FEATURES AND PRODUCTS.

Mountains and rivers of the North—Its scenery—Luxuriant vegetation—Central and Southern India—Eastern and Western Ghats—Climatic conditions—Monsoons, rainfall, and temperature—The death-rate—Advance of the study of medicine—Zoology of the country—Deaths caused by wild beasts and snake-bites—Tiger-hunting—A “man-eating” leopard—The elephant and rhinoceros—Birds—Reptiles—Fishes—Insects—Mineral resources of the land—Salt and saltpetre—Coal and iron-ore—Quartz-crushing for gold—Limestone and building-stone—Precious stones.

The vast region known as India presents natural features and phenomena on a very great and varied scale. The huge double mountain-wall of the Himalayas, running nearly east and west for over 1700 miles, with a breadth from north to south of from 150 to 250 miles, has its higher ranges crowned with never-melting snow, lying on mountains, of which Kanchanjanga exceeds 28,000 feet in elevation, and Mount Everest, the loftiest measured peak in the world, just surpasses 29,000. In this great northern barrier, largely unexplored, there are glaciers of which one is known to have a length of 60 miles, and in the valleys rise some of the greater Asiatic rivers, the Indus and the Sutlej, the Ganges and the Tsanpu (Sangpu) or Brahmaputra. There are passes, used as trade-routes into Tibet and Eastern Turkistan, at a height of 18,000 feet, but the huge ramparts provided by nature to guard the northern frontier of India are nowhere penetrable by a modern army. In a different way, these lofty mountains render great service to the people of the tropical plains below by intercepting a large portion of the clouds carried from the Indian Ocean by the monsoons (regular or “season” winds), and causing them to deposit their moisture either as rain or snow, drenching the lower region

with the rainfall, and by rain and snow creating and constantly feeding the mighty rivers that descend for the good of the tillers of the soil in the Punjab, the North-west Provinces, Oudh, and Bengal. The Himalayan vegetation, according to the height above sea-level in three well-defined zones, is tropical, temperate, or arctic, displaying tree-ferns and bamboos, ilexes and mountain-oaks, and many varieties of pine and fir; the chestnut, the walnut, and the maple; and furnishing for our British parks, gardens, and glass-houses the fine deodar or Himalayan cedar, the gay rhododendron, and the fantastic flowers of the orchid-race. Barley, oats, millets, and several other small grains, rice in the moist ground of warm valleys, and the potato, introduced from England, and largely grown on land wastefully cleared of forest, are the chief food-plants of the Himalayan hill-tribes. Some faint conception of the grandeur of the scenery, apart from the towering strongholds of frost and snow rising often two miles higher than the topmost ground of the Matterhorn and Mont Blanc, may be formed from the facts that the Indus, rising in Tibet at 16,000 feet above sea-level, bursts through the western ranges of the Himalayas by a gorge in Kashmir nearly three miles in depth, while the Sutlej, issuing from a lake in Tibet, makes its way through the great range by a ravine where the ground ascends on each side to 20,000 feet, and at one part of its course flows in rocky rapids, between bare and precipitous mountains towering above, with a savage force that sometimes reduces to small fragments the great cedars and pines committed to its waters for conveyance to the plains of the Punjab. All detailed description in this part of our subject—the alluvial and diluvial work of the great rivers, the change of the Brahmaputra's course, the method of deposits in forming deltas, the tributaries and the traffic, the fertilizing bounty of holy Ganges in her irrigation-canals and in the silt of her overflow on the land beside her banks—these and a hundred other interesting and important matters concerning the rivers of northern India should be sought in those wonderful books of Sir William Hunter's, *The Indian Empire* and *The Imperial Gazetteer of India*. The fertility of soil induced by the rains and rivers in northern India is such that two harvests are yearly reaped in most districts from land favourably placed, and in Lower Bengal, after pulses, oil-seeds, pease, and various green-crops have been taken off the ground in the spring, early rice-crops

follow between July and September, and the chief rice-harvest of the year comes two or three months later.

The scenery in the upper and middle courses of the Bengal rivers presents a country gently undulating upwards from the banks in a vast expanse adorned with fine timber-trees and dotted here and there with villages of mud-built huts. Groves of mango-trees from forty to fifty feet in height, thickly-branched and spreading at the top, with densely-crowded lengthy pointed leaves, make the air fragrant in the spring-time with blossoms like to those of the sweet chestnut, and yield in summer their abundant egg-shaped yellow or ruddy fruit. The noble peepul (pipal) or sacred fig, with masses of green leaves; the wild cotton-tree, blazing with large crimson blossoms that come forth before the leaves; the tall graceful tamarind with its dainty leaflets, feathery-fine, arranged in pairs upon the stalk, rise into air above the field-crops. Of all the Indian trees, the banyan is the strangest to the European eye. This wondrous member of the fig-tree tribe, with oval heart-shaped leaves from five to six inches long, has branches that throw down hanging offshoots which, rooting in the ground, become new stems and spread the mother-tree abroad until a very wood is formed, lasting for ages after the central trunk has perished from decay. We have record of a banyan thus displaying in irregular colonnades above three hundred stems as large as those of good-sized oaks and ten times as many of inferior size, the whole of them together covering a space on which seven thousand persons could stand beneath the leafage, which contains a world of forest-life in birds, and native bats that live upon the fruit, a scarlet fig no bigger than a cherry, growing in pairs from the axils of the leaves, and crowds of chattering monkeys that make the foliage as well as fruit their food. The banyan is an object of special reverence to Brahmans, as the peepul is to Buddhists. As the traveller down the stream or by the river-bank draws nearer to the sea, palm-trees arise upon the view, and in the delta he beholds the rice-fields stretching flat and far away, bordered by various tufted palms producing the areca-nut or betel, the cocoa-nut, the date. There, too, are growing in abundance the gigantic grasses called bamboos, with jointed stems, hard, light, elastic, hollow save for the light spongy pith, and rising to a height of from ten to fifty feet. Of all productions in the vegetable world, the cocoa-palm and the bamboo are most

remarkable for their varied uses to the natives of the provinces that lie on the Indian coasts. The qualities of strength, lightness, elasticity, and hollowness in the bamboo adapt it for arrows, quivers, bows, and shafts of javelin, spear, and lance; the native mariner employs it for the masts and spars of smaller craft and to make decks for boats; the fisherman forms from it his angling-rods and fishing-poles and stakes for netting. The builder and the maker of furniture and utensils find in the bamboo material for scaffolding, ladders, framework for houses, flooring, roofing, tent-poles, flag-poles, palanquin-poles, bed-posts, umbrella-handles, walking-sticks, water-pipes, weaving-implements, carts, litters, biers, baskets, buckets, pen-holders, toasting-forks, and tongs; for pencils, rulers, cages, pipes, pipe-stems, blowing-tubes, chairs, seats, screens, couches, tables, and cots. Rails, fences, light bridges, are all made of bamboo, and the finely-split stems are worked up into mats, ropes, and even sails for boats. The lining of the stems, after being made into a paste by bruising and steeping, affords an excellent paper. The young and tender shoots are eaten like asparagus, or made into soup with meat and spices, or pickled in vinegar for exportation to Europe. The manifold utility of the cocoa-nut palm for food and oil; for roofing, mats, baskets, and screens; for timber and cordage, cups and ladles, needs no further mention here. The valley of the Ganges and its tributary rivers produces wheat, barley, Indian corn or maize, and various millets in the more northern region, and rice as the staple crop and general food on the lower courses, while the rich territory, as a whole, affords sugar-cane and cotton; indigo and tobacco; saffron and other dyes; oil-seeds and flax; ginger, capsicum, red pepper, and other valuable spices; aloes, castor-oil, and many other medicines from shrubs, herbs, and roots; resins, varnishes, gums, perfumes, and india-rubber; melons, pumpkins, and yams; the opium-poppy and the mulberry; jute in the delta, shell-lac in the woods, splendid timber from many a kind of trees,—in short, nearly all that in the vegetable-world is, in that climate, of service to feed, clothe, shelter, and cure mankind.

Central and Southern India, with their triangular table-land forming the great peninsular region, are bounded and intersected by mountain-ranges, broken by river-valleys, and varied by peaks and spacious upland plains. The Vindhya Mountains, in their

popular name, form several separate systems of hills on the north, from 1500 to more than 4000 feet in height, with large masses of forests, peaks, and ridges, interspersed with tilled ground, high-lying table-lands of grassy growth, and charming river-courses. The Eastern Ghats (meaning "landing-stairs" upon a river, applied here to the passes of ascent from the coast-land to the inner plateau) have an average height of only 1500 feet. The Western Ghats run far closer to the shore, here and there rising from the ocean in grand precipice and mighty headland, with an average height of about 3000 feet, and peaks of near 5000 by the coast. The table-land inclosed by the Vindhya and the Ghats varies in height from 1000 to 3000 feet above sea-level, with peaks and ranges ascending to above 4000, and the Nilgiris ("Blue Mountains", Neilgherry Hills) attaining above 7000 feet at Utakamand (Ootacamund), the summer-capital of Madras, and near 9000 feet in Dodabetta peak, in the southern angle where the Eastern and the Western Ghats unite. The mountains on the western side, in the Bombay Presidency or province, display at many points the spectacle of bare trap-rock rising in stately heights of natural fortress with a curving front, and guarded at the sides by round towers of stone unshaped, unpiled by human hands. Southwards, the passes from the sea ascend through regions of dense forest, and lower still a gap of 20 miles in breadth presents an easy access, only 1000 feet in height, to the interior of the country. The barrier of mountains on the west of the central plateau has no opening for rivers to the Indian Ocean between Cape Comorin and Surat, and the two great streams, the Nerbada (Nerbudda) and Tapti, on the south of the Vindhya, flow north of Surat into the Gulf of Cambay. The Eastern Ghats have broad and easy passages to and from the Bay of Bengal, and by these the rainfall of the table-land reaches the sea in the Mahanadi, the Godavari, the Kistna (Krishna), and the Kaveri (Cauvery). Among the finest points of scenery in central and southern India are splendid falls on the Nerbudda between its source and Jabalpur (Jubbulpore); the passage of the same river, nine miles west of Jabalpur, through a narrow gorge between lofty rocks of white marble; and the grand cascades and rapids of the Cauvery at Sivasamudram, where the river splits into two streams as it passes through the Ghats.

Among the forest-trees of the Western Ghats are the famous

and most valuable teak, unrivalled for durability and strength in the construction of houses, bridges, ships, furniture, and railway-carriages; the *pun* tree of Tinneveli and Travancore, with tall straight stems for masts and spars of large ships; and the black-wood, excellent for carved furniture. The smaller vegetation includes the plant supplying the capsules known as cardamoms, whose seeds become an aromatic pungent spice of great value as an export, largely used in medicine as a stimulant and cordial, and as a flavour in confectionery. The forests on the hills of Coimbatore contain the precious sandal-tree with its fragrant lasting odour, fatal to insects and so making the compact and fine-grained wood most suitable in India for desks and work-boxes and ornamental articles, with a special value for cabinets designed to keep specimens in natural history. The high-priced essential oil, used as a base for many perfumes, is distilled from the heartwood and the root. The whole growth is a government-monopoly, with exports yearly valued at about £80,000. In the hill-country of the south, as in the virgin forest-land of Coorg, the luxuriant tropical foliage, viewed from a height above, has a rare wild beauty in its vast waving ocean of green leaves, within whose shelter live the tiger and the elephant, the leopard and the bison, the tall powerful *sambhar* (sambur) deer, the jungle-sheep and many kinds of smaller game. The rainy season shows the tourist water dashing down from giddy heights in cataracts that, at one spot of the Western Ghats, descend with sound of thunder through more than 800 feet. The tillage of the valleys and of the high central plains, on ground that is yearly more and more won from the jungle, includes wheat, various kinds of smaller grain or millets, pulses, tobacco, sugar-cane and cotton. On the western coast, between the Ghats and the sea, the fruit-bearing palms, the rice, and the two or three successive crops yearly reaped, make the rich land rival the products even of the lower Ganges. Spices and dyes, and many drugs for medicine, are also raised in southern India, where the drought that sometimes comes upon the interior high levels is remedied by irrigation from huge lakes or tanks constructed by the damming up of valleys as receptacles of storage for the water falling in the season of an average monsoon.

The meteorological phenomena or climatic conditions of India are, as might be expected from the range of latitude and the diver-

sity of physical features, of very varied character. The monsoons of the Indian Ocean blow from the south-west between April and October, bringing the wet season of the year, which specially affects the western and the eastern coasts, and Bengal and Assam. In those regions the rainfall varies from an annual average of 67 inches in Bombay Presidency to 44 inches in Madras Presidency, and again from 67 inches in Bengal to the greatest rainfall in the world, of uncomputed average, in Assam, where 56 inches have been known to fall at one station in four days. The lowest recorded average in that country is over 52 inches, the highest 801. North-western India is comparatively dry, the rainfall varying from less than 6 inches as the lowest average in that part of the Punjab which is protected from the monsoon by the Sulaiman range to 71 inches at Simla, and from 25 inches at Muttra on the plains to 91 at Naini Tal in the hills; while in Sind the average nowhere exceeds 16 inches, and the Indian Desert, in the north-west of Rajputana, is almost rainless. Lying half within the tropics, India is of necessity a region of great heat. The average mean yearly temperature in the south and west and in Bengal varies from nearly 78 degrees in Calcutta to nearly 80 in Bombay and 82 in Madras. In the north-west, the dryness of the climate makes the summer heat, in May and June, sometimes attain 120 degrees in the shade, with an average shade-heat, in Sind and the Western Punjab, of nearly 110 degrees on the afternoons of July. Remembering that on an average the temperature falls about 3 degrees for each thousand feet of ascent, we find a cool and healthy climate, even in the hottest seasons, at the *sanitaria* or health-resorts established in the hilly districts as the one means of enabling Europeans to resist and remedy for many years the drain upon their strength due to their life and work on lower levels. At Darjiling, Simla, and Masuri (Mussoorie), in the Himalaya, the mean yearly temperatures are about 52, 55, and 59 degrees respectively; at Shillong, in Assam, the temperature rarely exceeds 80 degrees, and fires are needed from November until March; at Pachmarhi, in the Central Provinces, a convalescent depôt for European troops, the average warmth is about 10 degrees below that of the valley; at Ootacamund (Utakamand), in the Nilgiri Hills, a paradise of beauty, the chief sanitarium of the Madras Presidency, the mean temperature is 58 degrees, at 7230 feet above sea-level.

Closely connected with the climate of the country are the subjects of medicine and vital statistics. On the latter head, owing to the prejudice of natives against inquisition into details of their life, and the impolicy of all attempts at compulsory registration, the information is of a very imperfect character as to births, deaths, marriages, and sex and age. It is only in municipal districts that any fairly accurate account can be obtained. It seems that the average annual death-rate for the whole population was, in 1895, about 30 per thousand, according to the registered returns; the total deaths, in a population of about 198 millions (not the whole number, by many millions, in the land, but those subject to registration), amounting to nearly 6 millions. Of these deaths, 292,000 were due to cholera, 120,000 to small-pox, 4,110,000 to various fevers, 231,000 to bowel complaints, 87,000 to injuries, and nearly 1,100,000 to all other causes. During the decade 1881-91 the population grew by 10 millions. On the subject of medicine, we have already noticed the decline of Hindu art and science, in the cure of disease, with the causes thereof, and may here note the remarkable revival which followed the establishment of medical colleges in India by the Government about the middle of the nineteenth century. The educated Mohammedans were quick, the Brahmans and the cultured Hindus in general less ready, to take advantage of the new opening to a lucrative and honourable career. The Hindus, however, soon far more than made up for their earlier reluctance, and of late, the British medical colleges throughout India contained nearly 1700 Hindu students, 340 Mohammedans, 540 native Christians, Parsis, Eurasians, Europeans and others, while a recent year saw the publication of about 230 medical works in the native languages. The growth of the modern native study of medicine, beginning with vernacular schools in Calcutta and Bombay, founded between 1820 and 1830, is traced in the creation of the Medical Colleges of Bengal, Madras, and Bombay between 1835 and 1857, and the extension of the pursuit of this branch of scientific knowledge to Haidarabad (in the Deccan), Nagpur, Agra, Lahore, Balrampur (Oudh), Patna, Dacca, Poona, and Ahmadabad. Among the official and non-official agencies—Medical Boards, Medical Physical Societies, Medical Departments, Inspectors-General of Hospitals—charged with the care of the public health, we have the Sanitary Commissioner to the Government of India, Sanitary

Commissioners to the Local Governments, Health Officers to the municipal bodies, and special Committees or Commissions appointed from time to time to inquire into particular outbreaks and forms of disease.

The zoology of India comprises, as even persons less instructed than Macaulay's schoolboy know, some of the fiercest and most rapacious and destructive, one of the largest and most sagacious, some of the most useful and of the most graceful, and, among the birds, most gorgeous creatures that the world can show. A tragical contrast to the European fauna is presented in the fact that the Government, as protector of the peasant and his herds, is forced to wage a constant war, by a regular scale of payments for each slaughtered foe, against the wild beasts—tigers, leopards, wolves, hyænas, bears, and elephants—and, above all, against the deadly snakes that bring destruction on the life of men and cattle. Each year it is known that nearly 24,000 persons and about 70,000 cattle are slain by wild beasts and snakes. The total number of savage animals yearly destroyed, for which rewards are claimed according to the tariff, exceeds 13,500, while the number of snakes thus known to have been killed reaches more than half a million. Of the beasts, the tiger is the most destructive, but the snake-bite is by far the most fatal agency, since of late the number slain by animals was under 2500, while above 21,400 fell victims to the cobra and its poisonous congeners. Of the cattle, 64,500 were slain by wild beasts, and about 4000 by the bite of snakes provoked, no doubt, by accidental treading on the reptiles, a large cause of death to the bare-legged natives walking in a garden, field, or jungle. The lion is now nearly extinct, only a few strictly preserved specimens of the maneless variety being found in the hill-desert and forest-land of Kathiawar, the peninsula or western portion of Gujarat (Guzerat), in the Bombay Presidency. The tiger, rare now in many great districts, is still found from the malarious *tarai*, the moist and jungly tract that skirts the southern parts of the Himalayas, eastwards to the Sundarban swamps of the Gangetic delta, and southwards in the vast jungles of the central tableland. The deer and antelope are his chief food, where they are abundant; in lack of these, he preys upon domestic cattle. It is when the tiger has once tasted human flesh and become that dreadful epicure, a "man-eater", that his destructive work becomes

a terror to whole districts, causing villages to be deserted by the people and areas of tillage as large as Middlesex to be abandoned for the time to waste and weeds. There are true records of these animals, which are mostly old ones, disabled from pursuit of deer, having each killed more than a hundred persons, often rather from cruel rage than hunger. When such an animal has taken up his station near some lonely pathway, to spring on every passer-by, or, with his lair in the adjacent jungle, quarters himself upon a village, caring nothing for the sheep and cattle, but making prey of the inhabitants in turn, all egress from the place, nay, even from the mud-hut in which each family lives, becomes an enterprise hardly less dangerous than the leading of a forlorn hope. The only resource for people devoid of firearms or without the skill and courage to use them with effect against a monster so terrible, is to invoke the aid of some British "sahibs", officers who may be quartered in a military station, or of a bold tourist ranging the country in search of big game for his rifle. The foe then succumbs to attack from a party mounted on trained elephants, or, in some cases, to assailants on foot, men of the steadiest nerves, the surest eye, and the most finished weapons. The sportsman who will go face to face with the lord of the Indian jungle, and, while a shot that wounds but fails to kill is almost certain death to him who fires it, can slay his enemy in a single-handed battle, may retire upon his laurels as the winner of the blue riband of sport, and, listening unmoved to tales of daring, will feel assured that the reciter has never been so near to death as he has. Recently, nearly 800 persons and about 30,000 cattle were returned as the victims of tigers, and 36,000 rupees, or £3600, at the value of two shillings per rupee, were paid during one year to native professional huntsmen for the destruction of nearly 1300 tigers.

The leopard or panther is in all parts of India far more common than the larger beast of prey, and in a year about 200 persons and over 25,000 cattle are destroyed by their teeth and claws, while about the same sum in money as for tigers is paid for the slaying of over 3700 leopards. In the years 1890 and 1891, a district of Lower Bengal had a dreadful experience of destruction caused by the ferocity of that rarest of creatures, a man-eating leopard. The records of Oriental natural history and sport present no other instance of such a monster. Wolves and

hyænas are yearly the slayers of about 300 persons, mostly young children, and of nearly 7000 cattle, but the leopard has always been regarded as the chief enemy of goats, sheep, poultry, and the village dogs, rarely attacking human beings without provocation. Stealthy and silent in tread, and as crafty as a fox in his ways, he creeps by night into the hen-roosts, and destroys the whole stock in one raid. At the Indian hill-stations such as Simla and Mussoorie, the pet-dogs of ladies have been frequent victims, carried off before their mistresses' eyes. A new terror for villagers arose when in Rajshahi, a district of larger area than Norfolk, on the north bank of the Ganges in eastern Bengal, a leopard was reported to the police, in the month of July, 1890, as having killed and eaten a girl aged four and a boy of seven. This information was at first disbelieved, and the officials suspected that the children had been murdered, or that the authors of the tragedy were hyænas or wolves. In August, however, some natives came again to the police, declaring that the leopard had been seen to kill a boy aged eight, and that he had also carried off a baby six weeks old. The authorities still lacked faith in the story of a leopard with a taste for human flesh, but in December information came in that a boy of seven had been killed by a leopard described as a large heavy-shouldered beast, with rather a short tail, and averred by the villagers to be the same creature as the perpetrator of the other ravages. Terrible confirmation of the truth of these assertions came fast. In January, 1891, this monster carried off eight victims to devour at his leisure, and not one month of the year passed away without the destruction, by the same animal, in the same districts, of human beings varying in number from one to fourteen. A woman of thirty years, returning from market with her son of ten, was seized by the neck and instantly killed, when she rushed to the rescue of the lad on whom the leopard had sprung from the thicket. The boy's body was carried off into the jungle, in view of several of the woman's acquaintance who hurried in terror from the scene. A cow-herd, rising at early morning, found his mother's body lying in the courtyard, with her neck broken and blood sucked by the same ferocious beast. In January, 1892, fourteen persons were killed by the leopard, in February twenty-one, in March thirteen, and in the first week of April the total number of country-people slain by this one animal had reached

about 150. Many attempts had been made both by natives and Europeans to rid the district of this mortal plague, but all had ended in failure, due to the leopard's cunning care in hiding himself among the sugar-cane crop into which elephants may not be sent, or in the thick grass or the undergrowth of jungle impenetrable by human eyes. At last, on April 6th, 1892, nineteen elephants with mounted shooters were brought into action, and, the animal having taken refuge in a patch of high grass, he was forced out by an advance, shoulder to shoulder, of the whole body. Even then, he got away without being sighted by any of the shooting-party, but a poor villager, whose wife had been killed by the beast, chanced to see him climb into a tree, and there he was surrounded and, after many shots, was slain. The length was six feet six inches, and the head and shoulders were unusually large.

Jackals, chased like the fox by the packs of Anglo-Indian sportsmen; troops of wild dogs that hunt down deer and carnivorous animals; bears, feeding on honey, fruit, and ants; and the wild hog, well known from accounts of the exciting sport called "pig-sticking", are among the fierce animals of the Indian woods and hills and plains. Except in the north-west, the elephant is still found wild in many parts of the land, chiefly among the higher ridges and table-lands of the hilly regions. The forests of Coorg, Mysore, and Travancore are the only southern districts where the animal lives in a natural state, his chief haunts being in the hills on the north-east frontier from Burma to Assam, and along the *tarai* or jungly and swampy ground of the southern lower edge of the Himalayas. The method of capturing elephants in a kraal or *kheda*, a huge stockade, into which they are driven as a trap, starved into submission, and then tamed by well-broken fellows, is well known. In 1891, about 260 were thus taken in Assam, the strength and sagacity of the beast being still in considerable demand for purposes of draught, and custom and love of display causing high prices to be paid by native princes for good specimens of the towering creature so extensively used in the warfare and pageantry of the olden days. The animals are now a monopoly of the Government, and may only be shot in case of danger to human beings or destruction to crops, while "The Elephants Preservation Act" of 1879 protects them from slaughter, capture, and injury by heavy fine and imprisonment, except in the case of

persons having licenses on certain terms. Four varieties of the rhinoceros, two with a single and two with a double horn, are to be variously found in the Sundarbans, in Burma, and in the swamps of the Brahmaputra valley. The mild-natured game of sportsmen in India includes many kinds of deer and antelopes, and of wild sheep and goats in the Himalayas. The *gaur* or bison of the jungles on the hills, often over six feet in height to the top of the shoulder-hump, with huge head and short curved horns, is as dangerous and exciting to hunt as the tiger or the wild elephant. The buffalo is a great and intensely fierce creature, crowned with an enormous head; the nyl-ghau, nilgai, or "blue-ox", as its Persian name signifies, is held sacred by the Hindus from a fancied kinship to the bovine race, but is really a large kind of antelope. The huge rat called a bandicoot, sometimes two feet in length, and voles or field-mice, among countless specimens of their tribe, are respectively injurious to plants and fruit, and to the usual crops of the field.

The subject of birds is far too wide for any detailed account. A hint of the teeming winged life may be given in a scene that is often witnessed in a "compound" or bungalow-garden. A host of beautiful paroquets are resting on or flitting about the trees when a flapping of wings is heard, and vultures swoop down from the sky, each picking out his prey, and plucking the bright-hued feathers in preparing for a meal as they perch on some lofty branch, amid the flight of the other terror-stricken birds. There are many kinds of eagles, falcons, and hawks, and the sportsman has abundance of choice amid game-birds, living on land and water, of almost every kind known to the British Isles. The reptiles, besides the cobra, include poisonous salt-water snakes, and two kinds of crocodile that make the rivers and tanks dangerous to careless bathers. Numbers of scorpions, capable of inflicting very severe and troublesome wounds from the sting at the end of the tail, make themselves hateful by their habit of getting into houses, and secreting themselves under bedding, and in boots and other articles of wear. In the sea, the rivers, and the tanks, fish of many kinds supply abundant and wholesome food, the *maksir* of the hill-streams, a kind of very large barbel, being specially dear to the sportsman from its spirit and strength. The *hilsa*, tasting and looking like a sort of fat white salmon, very largely captured in

the rivers of Lower Bengal, has a very rich and agreeable flavour. Of the countless varieties of insects, the bee, the silk-worm, and the lac-insect are the most useful to man. The butterflies are such for splendour as the tropics alone produce. Locusts are sometimes found to clear a district of its verdure. The white ant and the mosquito, and moths of destructive habits, are truly odious pests to all people in India. A quotation from a letter of Macaulay's, written in 1836, and dated from Calcutta, may serve to explain why Europeans flee from the life of the plains to the comparative repose, coolness, and comfort of the hills. "One execrable effect the climate produces. It destroys all the works of man with scarcely one exception. Steel rusts; razors lose their edge; thread decays; clothes fall to pieces; books moulder away, and drop out of their bindings; plaster cracks; timber rots; matting is in shreds. The sun, the steam of this vast alluvial tract, and the infinite armies of white ants, make such havoc with buildings that a house requires a complete repair every three years." The "white ants" are, in fact, not ants at all, but properly called Termites, feeding mostly on wood, entering the timbers of houses from below, eating out the interior into a hollow deceptive shell, and committing the same ravages on wooden furniture of every kind.

From the fauna of India we turn to some brief account of the mineral resources of the land. First in order of importance come salt, saltpetre, and coal. Salt is a substance of supreme necessity to the Indian peasant with his almost wholly vegetable diet, and, apart from imported supplies, is largely obtained by evaporation from sea-water along the whole line of coast, and from inland salt-lakes, such as the great Sambhar Lake in Jaipur and Rajputana. This sheet of water, which at its largest extent, after filling by the rains, measures about 20 miles in length from east to west, and from 3 to 10 miles in breadth, with a depth varying from 1 to 4 feet, is surrounded by rocks abounding in limestone and salt. From October to June the waters are constantly evaporating, so that the surface is reduced, in a very dry season, to about a mile in length by half a mile in breadth. The dry area is then covered with a white, crisp efflorescence of salt, and the valuable property is leased by the Indian Government from the native rulers, the Rajput princes of Jaipur and Jodhpur. The material supplies the markets of the Punjab, the North-west Provinces, and Central India with an annual average of

100,000 tons, affording work to above 400,000 labourers, and many thousands of carts and cattle. Salt, as a true mineral, is largely obtained in the quarrying of massive cliffs, unsurpassed for extent and for quality of salt, in the north-east of the Punjab, the chief mine being the "Lord Mayo", in the district of Jehlam (Jhelum). As for saltpetre, in its natural form, nearly the whole European supply for the making of gunpowder and for other purposes is derived, except for that obtained from the Chilian nitrate of soda, from efflorescent products of the soil in Northern Behar, and, to a smaller extent, from like gatherings after heavy rain in the North-west Provinces. The mining of coal has been for forty years an industry of steadily progressive value. The first English coal-mine, producing 50,000 tons in 1878, was opened in 1820 in the Raniganj Sub-division of the Bardwan District of Bengal. The coal-field has an area of about 500 square miles in a region now cleared of its former thick jungle, with seams varying in thickness from 70 to 120 feet. A great impulse to production was given by the commencement of the East Indian Railway in 1854, and the demand has continually grown with the increase of railway-works, river-steamers, and jute-mills at Calcutta. At Serampur, in the Hugli District of Bengal, we find a colliery about 220 yards deep, styled "Jubilee Pit Number Two", in British coal-country fashion, and ponies draw the tubs along the dark galleries under nude drivers yelling in various native tongues. At Makum, in Assam, a fine quality of coal for steaming and smithy purposes is worked, and the mines of Warora and Mohpani, in the Central Provinces, are also important. The annual output of the Indian collieries was recently 2,168,000 tons. The best quality, however, has less fixed carbon than British coal, and above three times the amount of ash, so that it will perform only from two-thirds to three-fourths of the duty done by its rival, which is imported almost at ballast-rates. As the total imports from Great Britain were only 784,000 tons in a recent year, it is clear that the demand for Indian coal is not likely to decrease.

Iron-ore of wonderful purity has been worked for many ages in every part of the country from the Himalayas to the extreme south, but the primitive methods of smelting, using a very large amount of charcoal, do not enable the product to compete in price with the British imports, and the only remunerative works, apart

from the small enterprises of many peasant-families of smelters, are those of the Bengal Government at Khendua, in the Manbhun District of the province. Silver is nowhere found. Gold is obtained in small quantities by washing in hill-streams, and of late years quartz-crushing, in reefs resembling those of Australia, has been tried in the Wainad (Wynaad) Sub-division of the Nilgiri District and in the Kolar District of Mysore. Several millions of British capital have there been sunk in providing plant of the most efficient kind, and good results may yet be attained. In 1890-91 only three of the many gold-mines opened in Southern India were yielding fairly, the total produce for 1891 being valued at under £450,000. Limestone for metalling the roads and for making mortar is almost everywhere found, and the hill-country abounds in building-stone of excellent quality. The pink marble of Rajputana was used for building the old architectural glories of Agra; the Deccan has trap-rock; the valleys of the Godavari and the Nerbada are rich in sand-stone; and Southern India has valuable granite. The precious stones of India are, in native hoards, the inheritance of what was gathered in past ages, and, apart from the jade and ruby-mines of Upper Burma (not India at all, though made a part of the Indian Empire) and the pearls and other gems of Ceylon, nothing worthy of mention is now obtained. The famous diamonds of Golconda, a fortress and ruined city a few miles west of Haidarabad, in the Nizam's Dominions, and once the capital of a large and powerful kingdom, were not found there, but were the natural productions of another part of the territory, cut and polished by Golconda artisans.

CHAPTER VIII.

INDIA—*Continued.*PEOPLES, RELIGIONS, AND OCCUPATIONS. COMMUNICATIONS,
COMMERCE, TRADE.

Distribution of the population—The non-Aryan hill-tribes—The Santals—Kandhs—Bhils—Religious classification of the people—Rammohun Roy and Keshub Chunder Sen—The Parsis—Introduction of Christianity—The Roman Catholic Church—Protestant missions—Friedrich Schwarz—William Carey—Henry Martyn—Bishop Heber—Formation of dioceses—Labours of Dr. Duff—Progress of mission work—Occupations of the people—Agriculture—Means of irrigation—Products of the soil—Growth of rice, wheat, and millet—Oil-seeds—Vegetables—Fruits and spices—Cotton and jute—Indigo, opium, and tobacco—Coffee and tea—Cinchona—Production of silk—Sketch of village life—Preservation of the forests—Cotton, jute, and other manufactures—Native industries—Means of communication—Railway system of India—Great engineering works—The Bhore-Ghat Incline—Telegraphs—Statistics of export and import trade—The internal trade of India.

In 1891 the population of the whole of India, including Burma, exceeded 289 millions. One-third of the country, containing about 67 millions of people, is left in the hands of its hereditary rulers, so that British India, our Indian Empire strictly so called, under direct British administration, had then a population of about 222 millions. The diversity of races and languages has been already described in a previous section, and we have here to note first some facts concerning the distribution of the vast numbers of British subjects in the land, presenting results very widely different from those in our own country. Premising that the population has rapidly increased, from a total of under 200 millions for British India in 1881, and noting that the whole number of English, Scottish, and Irish residents, apart from the army, just exceeded 100,000 in 1891, we find that the average density, excluding Burma and Assam, is one of 280 persons to the square mile on an area of about 745,000 square miles. The proportion in France is but 186 (in 1891) to the square miles; in England and Wales it is now about 500. We must specially observe that India is not a region of large towns, but has an almost entirely rural population. In the year of the latest census, 1891, there were only about 200 towns with numbers exceeding 20,000, and of these only 60 towns had more than 50,000 people. Villages with less than 200 people probably exceed 300,000 in number, and we may estimate at over 200,000 more the villages

having between 200 and 500 inhabitants. The contrast between India and England (with Wales) is this—that over 53 per cent of the people in South Britain were in 1891 living in 182 towns exceeding 20,000 people, while in British India less than 5 per cent were so situated. Many of the so-called Indian towns are, moreover, nothing but groups of villages in the midst of which tilled land and pasturage are seen. There are many country districts that are overcrowded, with populations, as in many parts of Bengal, exceeding 1000 persons to the square mile of tillage, and there are also great tracts of fertile soil ready for cultivators, but it is very difficult to induce the Indian peasantry to migrate from their hereditary farms. A more equal distribution is all that is needed to enable the land in India, with average seasons, to well support a far larger population than the present. Before proceeding to classify the people according to religion, we may remind the reader that, in respect of race, about 19½ millions in British India are Brahmans and Rajputs, of comparatively pure Aryan blood, about 11 millions are “aboriginals” or “wild forest tribes”, about 140 millions are of the mixed population known as Hindus, composed of Aryan and, more largely, of non-Aryan elements, and about 50 millions are Mohammedans descended from Central Asiatic invaders and variously mixed in race.

The non-Aryan hill-tribes deserve some special notice in connection with their recent history and with the British military service. The Santals, numbering about one million in 1872, live in jungle-villages or among the mountains, on the north-eastern edge of the central plateau, abutting on the Ganges in Lower Bengal. The social life is based upon a strong regard for the tie of kinship. The people of each hamlet, governed by a hereditary headman, with a deputy and a watchman or policeman, feast, hunt, and worship together, and the chief punishment for crime consists in expulsion from the village into the loneliness of the forest. The gods worshipped are those of the race, the tribe (each of the seven clans having its separate deity), and the family, while offerings are also made to many spirits of the river and the forest, and of ancestry, to demons of the well and the mountain, and other unseen beings. Towards the end of the eighteenth century the Santals who had lived by hunting and by regular plunder of the lowland-harvests, began to work on farms and to hold land in

connection with the Permanent Settlement of Bengal. They acquired confidence in British rule, and lived in peace and prosperity until they came within the grasp of Hindu money-lenders, who by 1850 had most of the men in the hamlets at their mercy, and were terrorizing the people by threats of imprisonment under British law. In 1848, the inhabitants of three villages had fled back to the jungle, and resumed the wild life of former days. At last, in 1855, a body of Santals, 30,000 in number, armed with their bows and arrows, started for Calcutta, about 150 miles distant, with the intention of seeking help in their trouble from the Governor-General, Lord Dalhousie. Such a movement was sure to end in mischief. Collisions with the police ended in rebellion, quickly suppressed with some serious loss of life. Relief was then afforded to their pecuniary needs, and a British officer, in charge of the Santal Parganas or District, arranged a form of government with the village headmen. The Kandhs (Kondhs or Khands, meaning "hill-men"), numbering about 100,000, live in the highlands at the east of the Central Provinces, and overlooking the Orissa delta and the northern part of the coast in the Madras Presidency. Their form of rule is patriarchal, and until they felt the pressure of the strong British hand, blood-feuds and human sacrifices prevailed. Between 1835 and 1845, under able and energetic British administrators, the Kandhs were brought to a peaceful and orderly life, dwelling on clearings of forest-land, furnishing their best men to the police, and growing yearly in prosperity under the new system. The predatory clans have now, in British India, been transformed into peaceful cultivators and loyal soldiers, displaying one of the most gratifying of the many beneficent results of our rule. Since the days of Clive and Coote, the fidelity, truthfulness, attachment to their social superiors, and the cheerful courage of the hill and forest tribes have been marked by the officers who, on many a field of battle, have led to victory soldiers thence recruited. As pioneers and as engineers these men have also done excellent service, and some of the most valiant and valued of our native regiments, as we have seen in the gallant little Gurkhas of Nipal (Nepaul), are furnished by these reclaimed dwellers in the uplands of India. The Bhils, numbering over half a million, inhabit the Vindhya, Satpura, and Satmala Hills lying in the west central and western region, along the forest-covered

banks of the Narbada and the Tapti. During the eighteenth century, treated as outlaws by the Mahrattas (Marathas), they became robbers of a desperate character, defeating large bodies of troops sent against them in their strongholds, and scourging the people of the lowlands by their raids. When the territory called Khandesh was occupied by the British in 1818, anarchy was at its height, and the roads were only kept passable, or the villages habitable, by the regular payment of black-mail to the Bhils. Expeditions sent against them were powerless through the deadly malaria. The great reformer of this state of things was the splendid soldier, Captain, afterwards Sir James, Outram, who went into the hills and made friendly advances to the chiefs, whom he won over by feasts and by his exploits in tiger-shooting. He then conceived the idea of enlisting them in favour of the cause of order, and enrolled a small body of men from among his companions in the chase. In 1827 he had 600 sturdy warriors in his corps, who fought bravely for the British Government against freebooters. At this time, the District treasuries are guarded by Bhils, who form the chief police of that region.

In a religious classification, British India contains about 156 millions of Hindus and Brahmos, 50 millions of Mohammedans, over 7 million Buddhists (almost entirely in Burma), about 1½ million Christians, 6 millions of people holding "animistic" or tribal nature-worship faiths, 1½ million Sikhs, half a million Jains, about 80,000 Parsis, and 15,000 Jews. The Brahmos, very few in numbers, form a community termed the Brahmo-Somaj, or "Church of the one God", "Theistic Church", developing a new religion among Hindus educated in the western learning. The new faith had its rise with a Brahman of high birth, named Rammohun Roy, who, having come to doubt the ancestral beliefs, formed a creed like the Unitarianism of this country, accepting the morality preached by Christ, but rejecting His deity and miracles. In 1831 he visited England, where he was warmly welcomed on account of his high character, his zeal against the idolatry of most of his countrymen, and his services in promoting the abolition of suttee. He died at Bristol in 1833, and his work was continued by his Indian followers. The spread of British education greatly aided the movement, and a new leader arose in Keshub Chunder Sen, who joined the new church in 1858, and visited Europe in

1870. The fundamental principles of the Brahmo-Somaj are the recognition and worship of one Supreme God, the rejection of all special revelation, with reliance upon nature and intuition alone for religious knowledge, the ignoring of caste, of sacred books or places, and of all idolatrous rites, with esteem for what is good in all religions. The members of the association, which has above a hundred branches in India, are reformers of marriage-customs and promoters of female education, and have been represented, since 1880, by the *Theistic Quarterly Review*. The Sikhs, the Jains, the Hindus, and the Buddhists have been already dealt with, and the Mohammedans need no further mention.

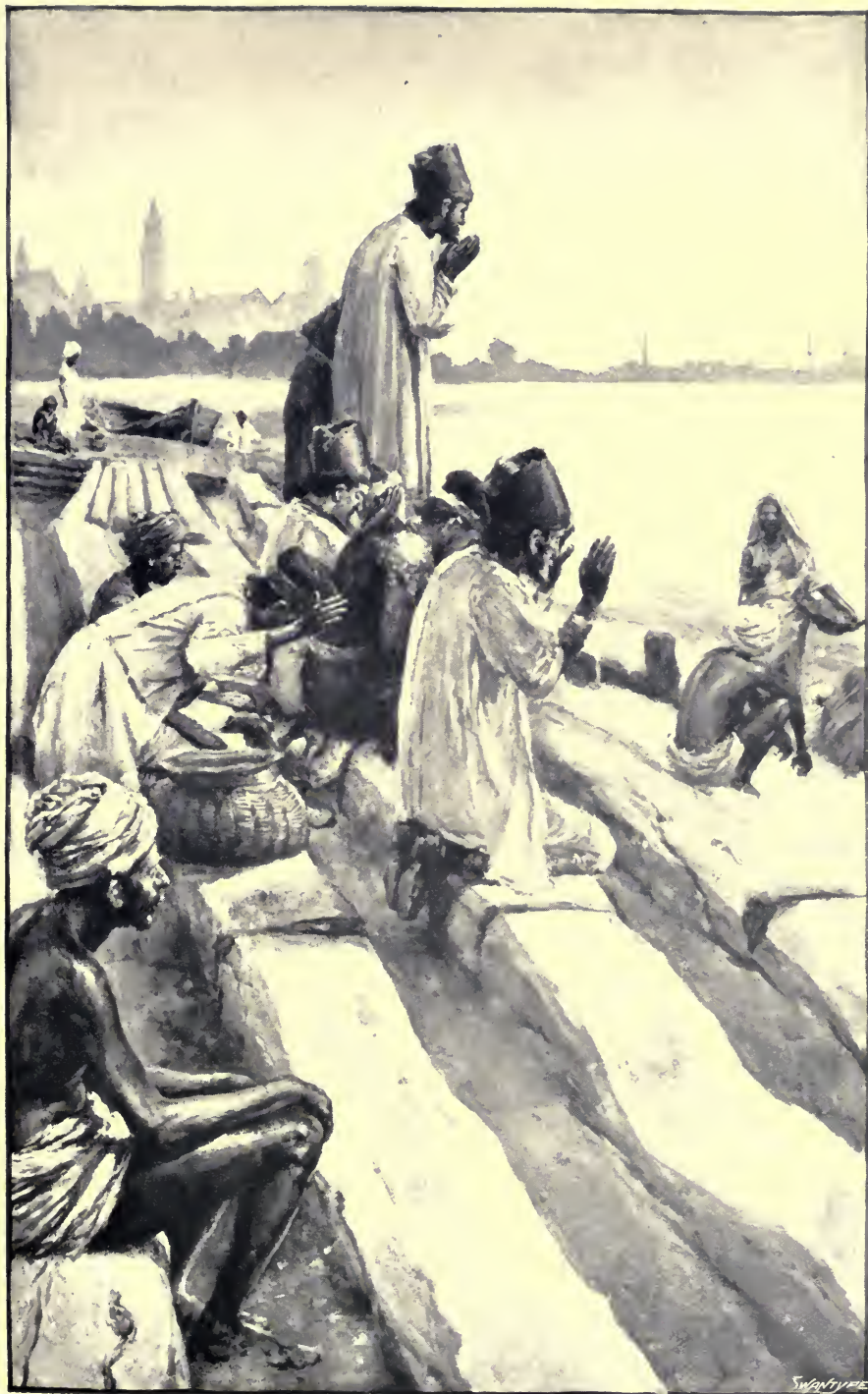
The Parsis have an importance wholly independent of their scanty number. Their name means "people of Pars or Fars", *i.e.* ancient Persia, and they are a remnant of the followers of the old Persian religion of Zoroaster (Zarathustra or Zerdusht), holding the sun and fire in reverence as the emblems of purity and light, and so of divinity. The ethical rules aim at purity in thought, word, and deed; the cleansing of physical and moral foulness is effected by washings with holy water or with earth, by prayers and by the recitation of passages of the sacred writings in the language of their ritual, the ancient, holy Zend; and by flagellation or by gifts to the priest. Marriage is permitted only within the limits of the sect. The dead, as is well known, are exposed on the iron grating of the Dakhmas or Towers of Silence, to the action of the elements and of birds of prey, until the bones fall through into a pit beneath, whence they are removed to a subterranean cavern. The Parsis form, as merchants and landed proprietors, one of the most respectable and thriving sections of the community, living chiefly at Bombay, Surat, and Ahmadabad in the west, and at Calcutta and Madras. They are conspicuous for integrity, industry, skill in trade, wealth, general intelligence, benevolence, and a splendid mode of life. Their eagerness to profit by western civilization is seen in the presence and success of many of their students at the London University examinations, and at other British resorts of learning. About two-thirds of the whole number, or some 50,000 Parsis, reside in Bombay, where they are conspicuous, in person, for their tall and stalwart figures, and their picturesque dress of long full white cotton trousers and shirts, with the high black tiara on the head, and, as citizens, for

their noble public spirit in the expenditure of their wealth. Many of the richest merchants of Bombay are Parsis, and other members of their community are very successful as ship-builders, engineers, hotel-keepers, and artisans. It is one of the sights of Bombay to behold, on the sea-strand, at rise and set of sun, many pious worshippers of fire standing erect, or kneeling on rugs, in adoration of the coming or departing orb of day.

Christianity, apart from legends concerning the preaching of the doubting apostle, Saint Thomas, arrived on the Malabar coast, in the person of converted Jews on board of the regular Roman merchant-fleet from the Red Sea, before the close of the second century. For a thousand years, from the fifth to the fifteenth century, the Nestorian doctrine of the Syrian church was the main representative of the Christian faith in that part of Southern India, and this was followed by the Catholic form introduced by the Portuguese early in the sixteenth century. In 1560, the Inquisition was established at Goa, and its warfare with heretics and pagans continued till its abolition in 1812. The Syrian Catholics in that region, retaining in their services the Syrian language and part of the old ritual, and acknowledging the Papal supremacy, still number over 220,000. The work of Portuguese missionaries among the heathen, including that of the famous St. Francis Xavier, who arrived in 1542, promised at one time the establishment of the faith through a large part of India. It left behind it, in the Portuguese territory as now held, the spectacle of the only Christian State-polity in the whole country, with a territory divided into parishes provided with churches and with other ecclesiastical features of a Christian land. The Jesuit missionaries, after the downfall of Portuguese political dominion, effected by the Dutch, in 1663, by the capture of Cochin, had much success. The suppression of the Order in Portugal, in 1759, deprived the Indian Jesuit missions both of priests and of funds, and the work of conversion became very feeble. Since the re-establishment of the Society in 1814 much progress has been made, and the Roman Catholics of all India, with Burma, now exceed $1\frac{1}{2}$ millions. Over two-thirds of the priests are natives, and there have also been several Brahman bishops. The missions include secular and regular clergy from many of the European countries, including Great Britain, Germany, and Holland. Since 1886, there has been

PARSIS WORSHIPPING THE RISING SUN ON THE BEACH AT BOMBAY.

Among the numerous religious sects in India are the Parsis, a remnant of the old Persian religion of Zoroaster. They worship one Supreme Being who is called Ormuzd, and is the source of all light and goodness; he is ever in conflict with Ahriman, the source of darkness and evil. The Parsis are said to be worshippers of fire; they themselves maintain that they do not worship that element, but only find in it an image and emblem of God's purity. That, indeed, is the basis of their religion—purity in thought, word, and deed. Their ritual prescribes various washings, both with water and with earth; while even their dead are exposed to the birds of prey on the Towers of Silence, in the interests of purity. Great numbers of the Parsis live in Bombay, and it is one of the most interesting sights of the city to watch these pious people kneeling on the beach in adoration at sunrise or sunset.



a regular ecclesiastical constitution of sixteen dioceses, grouped into six provinces, with two separate vicariates and three prefectures. Catholics are most numerous in the native states of Travancore and Cochin. The number of converts is steadily increasing, having more than doubled since 1851, and there is a good supply of colleges and schools.

The first Protestant missions in India were established by Danish Lutherans in 1706, at Tranquebar, in Tanjore. The translation of the Bible into Tamil and Hindustani was effected; but progress was slow, and for more than a century, from 1719 till 1824, the Lutheran missionaries were mainly supported by our Society for Promoting Christian Knowledge. The Society for the Propagation of the Gospel next took charge of the work. The famous Friedrich Schwarz, born in Brandenburg in 1726, was appointed and paid by the S.P.C.K., sailing for India in 1749. His character was a combination of piety and good sense, and he laboured with great success in Tranquebar, Trichinopoli, and Tanjore until his death in 1798. Hyder Ali of Mysore formed a high estimation of the German evangelist, and in arranging terms of peace with the Government of Madras he declined to receive and trust any other negotiator. He was tutor and guardian to the young son of the Rajah of Tanjore, and the lad became one of the most accomplished of native rulers. It was Schwarz who founded the Tinneveli Protestant missions, numbering 3000 souls in 1816. Four years later, two Lutheran ministers were sent out by the Church Missionary Society, and in 1835 there were over 11,000 converts. In 1881, there were over 81,000, the work having flourished under the control of Bishops Sargent and Caldwell, assistants to the Bishop of Madras. Dr. Caldwell is the eminent Orientalist who wrote the *Comparative Grammar of the Dravidian Languages*. The work in Tinneveli is remarkable for the progress made in the way of self-supporting churches. In 1884, there were only five European and Eurasian missionaries, along with sixty-six native clergymen, some of whom were maintained by their people. The Baptist missions of Serampur were established in 1799 by the famous William Carey, born in Northamptonshire in 1761, who passed through the grades of shoemaker's apprentice and Baptist preacher to the position of the editor of grammars and dictionaries in Bengali, Mahratta, Sanskrit, and other languages, in a sphere of

labour from which, before his death in 1834, hundreds of thousands of Bibles, or parts thereof, and tracts and other religious works, had been issued in about forty Oriental tongues. Serampur was a Danish possession until 1845, when it was purchased by the Company, and it was chosen by Carey as the seat of his efforts on account of the hostility then displayed by the Calcutta Government towards the work of missions. Marshman and Ward were other eminent Baptist labourers in this field, which was entered in 1798 by the London Missionary Society.

In 1813, the new Charter removed the Company's opposition to evangelizing efforts in India, and the Anglican Church, with a Bishop at Calcutta, and three archdeaconries, one in each Presidency, became directly connected with missions. Among the East India Company's chaplains, Henry Martyn, Senior Wrangler and first Smith's prizeman at Cambridge in 1801, was conspicuous for the zeal and ability of his labours in Bengal, where he translated the whole New Testament into Hindustani, Hindi, and Persian, the Prayer-book into Hindustani, and the Psalms into Persian, falling a victim to his toil in 1811. Dr. Middleton arrived in Calcutta as the first Bishop in 1814, succeeded, nine years later, by the eminent Reginald Heber, born in Cheshire in 1783, and a student of Brasenose College, Oxford, where he wrote the prize-poem, *Palestine*, which is almost the only composition of its class that has become a part of our literature. His *Hymns* include the well-known "From Greenland's Icy Mountains", and "Lo, He comes in clouds descending". His death from apoplexy in 1826, at Trichinopoli, was a grievous loss to the world of Christian character and ability. The Church Missionary Society and the Society for the Propagation of the Gospel have been the chief agencies of the Anglican Church in Indian missions, her main success being obtained, as we have seen, in Southern India. In 1835, the See of Madras, and in 1837, the See of Bombay, were established, and separate dioceses at Lahore and Rangoon (Burma) were founded in 1877. In 1879, a missionary bishopric of Travancore and Cochin was founded, and two other bishoprics have followed, that of Chutia-Nagpur (Bengal) in 1890, and of Lucknow in 1892. The ecclesiastical staff maintained by the Indian Government for the spiritual needs of its European soldiers and officials consists of about 160 Anglican, and 13 Presbyterian chaplains. The Bishops

of Calcutta, Madras, and Bombay are entirely paid by the Government; those of Lahore, Rangoon, and Lucknow are maintained by the income of voluntary endowments supplemented by a Government salary; the See of Chutia-Nagpur is endowed by subscriptions; the Bishop of Travancore is paid by the Church Missionary Society. The Government-staff of clergy is confined to the official and military centres, and the wants of Europeans at smaller stations are chiefly supplied by ministers sent out by the Additional Clergy Society and the Anglo-Indian Evangelization Society, a Nonconformist body. Among able and zealous missionaries of the Church of Scotland we find Alexander Duff, born in 1806 near Pitlochry, in Perthshire. A pupil of Chalmers at St. Andrews, he reached Calcutta in May, 1830, after two shipwrecks on his outward voyage, and struck out a new path in freely opening up European science and learning to the natives of India, along with his religious doctrine. He won the favour of the Indian Government, and displayed his marvellous energy in re-founding his college in India after the formation of the Free Church of Scotland, to which he adhered, had removed his original institution from under his control. He aided in establishing the University of Calcutta, and raised the sum of £10,000 for the endowment of a missionary-chair in the New College, Edinburgh. The sum of £11,000, presented to him as a token of esteem, was devoted by Duff as a fund for the support of invalided missionaries. John Wilson, born a farmer's son near Lauder in Berwickshire, in 1804, was another eminent Scottish missionary, labouring at Bombay from 1828, after 1843 in connection with the Free Church, until his death in 1875. He had a wonderful knowledge of Indian peoples, languages, literature, history, faiths, customs, and ideas, combined with great energy, sympathy, and wisdom. He became a Fellow of the Royal Society, vice-chancellor of the Bombay University, and president of the Bombay branch of the Asiatic Society. Many other missionary societies, belonging to the Wesleyans, Presbyterians of England and Ireland, and other bodies, have been at work in India, where the number of native Protestant Christians increased more than sevenfold between 1851 and 1890, from 91,000 to 648,000, a result largely due to the increased employment of natives in converting their brethren. The native ordained pastors grew, during the above period, from 21 to 797, and, of lay-preachers, from 493 to

3491. During the same forty years, the total number of pupils, male and female, in Protestant mission-schools increased from 64,000 to nearly 300,000, with a rapid rise in the standard of instruction, enabling the scholars to compete successfully with the Government colleges at the University examinations. The education of females has been a special object of attention among the missionary bodies, the Protestant day-schools for girls having risen from 285 in 1851 to 1507 in 1890, with pupils exceeding 108,000.

In considering the occupations of the people of India, we must first apprehend that 70 per cent of the whole number are dependent upon the land for their livelihood, in the tillage of the soil or in the pasturing of cattle. An infinite variety of detail is found in the methods applied to the deltaic swamps of Bengal and Burma, the dry uplands of the Karnatik, the "black-soil" plains of the Deccan, the strong clays of the Punjab, and the desert sand of Rajputana and Sind. The light plough of the Indian peasant, which he carries on his shoulders to the field, only scratches the surface of the soil, but shallow furrows are made again and again until by repeated toil the whole of the earth is reduced to powder and made easily accessible to moisture and heat. The lack of ordinary manures is supplied, in the river valleys, by the rich silt deposited, as in Egypt, by the annual flooding that follows the tropical rains, and water for the growth of crops is variously obtained, in Sind from channels for drawing off water from the Indus, from wells in the Deccan and the Punjab, from tanks (natural and artificial lakes) in the Karnatik, and by terraces cut on the hillside in every suitable locality to catch the streams pouring down from the higher ground. Irrigation by canals made in former days, or repaired or constructed anew under British rule, furnishes vast areas with the needful moisture in regions lacking rain and the aid of tanks and wells. This grand means of averting famine supplies two millions of acres in Sind, over 780,000 acres in the Bombay Presidency, nearly $3\frac{1}{2}$ millions of acres in the Punjab, about $1\frac{3}{4}$ millions of acres in the North-Western Provinces, 1 million acres in Lower Bengal, and about $1\frac{1}{2}$ millions of acres in the Madras Presidency. Every effort is made both by the Government and by the cultivators to guard against the disastrous effects both of floods and of drought. The valleys of the Ganges and the Brahmaputra, and the deltaic regions of the eastern coast, are protected by embank-

ments against an undue overflow from the rivers. In Southern India, where the inland plateau has an irregular supply of moisture from the rainfall, and engineering-work is limited not merely by the enormous expenditure required, but by the nature of the ground in its confusion of hills and valleys and its unmanageable levels, the tillers of the soil are largely dependent upon tanks excavated, or adapted from the natural formation of the ground, in the hill-country, and upon water obtained from the rivers by means of anicuts or dams across them, causing an artificial flood for diversion to the fields. Much service was rendered to the Indian peasantry, in connection with irrigation, under the rule of Lord Mayo, who executed or devised new systems of canals in the territory of the upper Ganges, the Jumna, and the Godavari, and in Behar and Orissa, and provided for interest on the cost of construction in a liberal arrangement for canal-cess, which compelled the husbandman to pay his water-rate only after proof either of benefit derived from irrigation, or of wilful neglect, during five years, to use the water brought by the canals close to his plot of ground. The Government thus levied its canal-rate, practically, only in return for actual value received, the estimate of liability requiring a demonstration that the cultivator's net profits, after paying the water-rate, had been or would have been increased by use of the canal. Recently, in the whole of India, excluding Lower Burma and Assam, nearly 29 millions of acres or about one-fifth of the whole area under cultivation, were irrigated from the various sources above described, the amount expended in eight consecutive years being nearly 20 millions of tens of rupees, chargeable to revenue, or about 12 millions of pounds sterling, at the depreciated value of 1s. 2½*d.* per rupee. The Agricultural Department of our Indian Government strives to foster and improve the people's most important industry by collecting and furnishing early information concerning the crops in every province, by directing experimental farms, introducing new implements and objects of tillage, founding and conducting schools for teaching agricultural chemistry, and despatching native students to Europe for study of the whole subject. Much attention is also paid to the improvement of breeds of horned cattle and sheep, and of every class of draught-animals and beasts of burden.

As regards the various products of the soil, we find that about

one-third of the population of all India, or 93 millions, may be described as living upon rice, grown chiefly in the deltas of the great rivers, and on land along the sea-coasts; in the North-Western Provinces and Oudh, that grain is grown only on the naturally moist ground or by means of irrigation. In the centre of the country, and in the Punjab, only small areas are under this wet-loving plant, which needs about 35 inches of water for its perfect growth. It is of late years only that the growth of wheat in India has, by exportation to Great Britain, attracted much attention in this country. The great districts for this familiar European grain are in the north, and many readers will be surprised to learn that the total wheat-area, exceeding 20 millions of acres in one year, equals the whole amount of land devoted to the crop in the United States. The Punjab alone, where the wheat-area is above one-third of the whole acreage given to food-grains, has more than 6 millions of acres, above double the amount of land given to wheat in Great Britain. In the Central Provinces, wheat covers 31 per cent of the area used for growing grain. The removal, in 1873, of the Indian export-duty on wheat brought a new supply of the cereal, hardly inferior in quality to the best Californian and Australian grain, into the British market, the average annual export from India to Europe over a series of recent years having reached nearly $17\frac{1}{2}$ million cwts. The most extensive crop of India as a whole, in the shape of food-grain, is found in varieties of millet, a very nutritious small grain locally called, in its several forms, and in several dialects, *joar*, *cholan*, *ragi*, *bajra*, *kambu*, &c. In the Madras Presidency nearly 12 million acres, or above half the total cultivated area, were recently under this crop; in Bombay and Sind, 65 per cent of the total food-acreage. A little Indian corn or maize, a large amount of barley, and many kinds of pulse, locally called *gram*, *dal*, &c., are also raised.

The native use of oil for lamps, for personal anointing, and for food is very large, and we find a corresponding growth, in all parts of India, of the oil-seeds which are also largely exported to Europe. Rape-seed, linseed, sesamum, and castor-oil seed are the chief products of this class, nearly 7 millions of acres being given to their growth, with a yearly export recently of over 24 million cwts., worth over $16\frac{3}{4}$ millions sterling. Many kinds of

excellent vegetables, especially of the cucumber and melon tribe, and including, of late years, turnips, cabbages, and potatoes, are grown in all parts for household use and for sale in the large towns. The chief fruits—mangoes, oranges, pomegranates, guavas, shaddocks, figs, limes, citrons, tamarinds, and others, including the pine-apple—are generally known, with the spices turmeric, chillies, ginger, coriander, aniseed, pepper, and cardamoms. The coconut palm and date-palms have been already named. Sugar-cane, of which the finest is grown in the North-Western Provinces, and the date-palm, in one variety, furnish saccharine matter for home-consumption and about $1\frac{1}{2}$ million cwts. for yearly export, with the value of £1,200,000.

The foreign trade in cotton, grown for ages in sufficiency for native requirements, dates mainly from the Lancashire famine of 1862 caused by the American Civil War, and already described in these pages. Between 1860 and 1866 the value of exports in raw cotton rose from about 2 millions sterling to 25 millions, falling greatly again after the restoration of peace in America until they were under 5 millions in 1879, and rising again of late years to over $13\frac{1}{4}$ millions. The material is inferior, in length of staple and fineness of quality for yarn, to the best American products, but has a secure hold of the market for all but the highest class of goods. The plains of Gujarat and Kathiawar, in the west; the Deccan highlands, and the valleys of Berar and the Central Provinces are the principal scenes of cotton-growth. There are at present about 175 mills for ginning, cleaning, and pressing the cotton in the Bombay Presidency, with work done by steam-power, and forming a great branch of native industry. The second place among Indian fibre-crops is taken by the jute which is grown in the north and east of Bengal. The vast demand of recent years, mentioned in our account of industries at Dundee, has done wonders for the prosperity of the growers in India. The exports in one recent year reached 8,690,000 cwts., worth over $8\frac{1}{2}$ millions sterling, besides jute manufactures to the value of £2,441,000.

We pass on to the famous plant producing the blue dye called indigo. Within the last half-century the British capitalist has abandoned its growth in Lower Bengal; Behar, the North-Western Provinces, the Punjab, and Madras are now the chief regions

for the crop, with an average annual export of 144,000 cwts., valued at about £2,400,000. The dyeing material is obtained by steeping the leaves in a large vat until fermentation ensues; boiling the sediment deposited in a second vat, straining it, and making it up into cakes. The drug concerning which so brisk a wordy warfare has long been waged in Great Britain and India, to say nothing of the armed hostilities in China already described, is chiefly grown and manufactured in the mid-Ganges valley, near Benares and Patna, and in a portion of Central India, including the states of Indore and Bhopal. There is produced the opium of Indian trade, the cultivation being a Government monopoly in Bengal, while the duty on that grown in the Native states is levied on passage through Bombay territory to the ports of shipment. In Rajputana, and in some small districts of the Central Provinces and the Punjab, opium is produced for local use, the cultivation of the poppy being prohibited through all the rest of British India. In a recent year about 98,000 cwts. of opium were exported, to the value of over 8 millions sterling, with a nett profit to the Government amounting to about 3 millions. The cultivation of the poppy and the preparation of the juice are elaborate, tedious, and expensive operations, and, according to Indian custom, an advance of money is made to the cultivator before preparing his ground, to be repaid when he delivers his crop, for examination and weighing, to the Government agents. The opium-grower undertakes yearly to sow a certain area with poppy, with the option of declining to sow at all, and, after engagement, he is bound to transfer the whole produce to the Government, with payment at a fixed rate, dependent on quality. Tobacco is grown everywhere for native consumption. The Portuguese introduced it in the early years of the reign of the British Solomon who so strongly denounced the weed. The only Indian product in this way that is much relished by European smokers is the "Trichinopoly cheroot" of the Madura and Coimbatore Districts in Madras.

Since 1830, when a coffee-garden was first established by an English planter, the cultivation of the shrub, carried on by natives since the end of the eighteenth century with plants introduced from Arabia, has spread largely in Southern India. The whole area thus occupied in 1893-94 was about 270,000 acres, producing coffee to the annual value of over 2 millions sterling. In Coorg,

nearly half of the whole cultivated area is devoted to the coffee-plant, best grown at about 3000 feet above sea-level, in a warm, moist situation, on soil composed of decayed vegetable matter such as is furnished in forest-clearings. Indian tea, on a large scale, is a product of recent years, now attracting more European capital than indigo, and a very successful rival of the Chinese article. In 1826, the tea-plant, a species of camellia, was found to be growing wild in Assam, after our conquest of the territory from Burma. In 1834, when Lord William Bentinck was in power, the Indian government took up the subject of tea-cultivation. Persons skilled in the tillage, and in the preparation of the leaf for market, were procured from China, and, on the importation of plants from that country, it was found that the best-flavoured tea was produced by a cross between the Chinese variety and the native plant of Assam. In 1838, the first chests of Assam tea arrived in England, and two years later the Assam Tea Company was in the field. Abundance of capital was soon forthcoming, and, after preliminary failures due to ignorance concerning soil and methods of preparation, the new industry attained a great and permanent success. The plant is grown very largely on the north-eastern hills in Assam, and in the District of Darjiling, between Nipal and Bhutan. The cultivation has of late years spread to the Nilgiri Hills, to southern districts of Bengal, and to the Punjab and the North-Western Provinces. In recent years statistics show that the total export of India-grown tea has reached nearly 130 millions of pounds weight, with a value of nearly 7 millions sterling, the bulk being sent to and consumed in the British Isles. The cultivation in India of the cinchona-tree, with the bark that yields the invaluable alkaloid called quinine, was due to the untiring energy of Sir Clements Markham, K.C.B., the very able geographer, explorer, and writer. It was he who, in 1860, brought seedlings from Peru to India, and for the first time reared artificially the tree which now supplies a cheap remedy against fevers to the teeming people of the plains, and exports to Europe enough bark to pay interest on the capital invested. The Government centre of cultivation is on the Nilgiri Hills, and there are large and valuable private estates. The tillage has spread into various districts of Southern India, and the Government have now a great and successful plantation at Darjiling, in northern Bengal. Recently, the Government had nearly

6 millions of trees at their two centres in the Nilgiris and in the Darjiling District, the quinine produced not being made an object of profit, but mainly devoted to the good of the people. The drug manufactured at the public factory is sold at one rupee per ounce, a price of which the significance can only be understood by those who regard the prevalence of fevers in India and the efficacy of the remedy thus placed within the reach of the poorest peasants. Above 12,000 acres of trees, in the Madras Presidency and Coorg, are in private hands, and of late nearly 3 million lbs. of bark were exported, to the value of about £80,000.

The production of silk is dependent on the mulberry-tillage, largely conducted in Bengal. The silk-trade is not an increasing industry. The Company, in the latter half of the eighteenth century and up to 1833, did much to foster sericulture, and in the above year about one million lbs. was the (average) annual export from Calcutta. The growth of the mulberry is now chiefly carried on, by native enterprise, in Lower Bengal, where recently nearly 16,000 persons, turning out 554,000 lbs. of silk, were thus employed. The silk is partly used on native looms, and partly spun and made into cloth at steam-factories in Bombay. The raw silk, exported to France, the British Isles, and Italy, in this order of amounts, is annually worth about £700,000. "Wild silk", called *tasar* or *tusser*, is obtained from the cocoons of worms feeding on various jungle-trees, the thread spun therefrom being mainly used on native looms.

The mode of life with the vast majority of the Indian population, those engaged in agricultural pursuits, is well described in a cheap and accessible book, Mr. Ramakrishna's *Life in an Indian Village*. The scene is laid in a typical hamlet of from fifty to sixty houses, representing over fifty thousand such collections of native abodes scattered over the Madras Presidency. The place consists of a cluster of trees, including the tamarind, mango, coconut palm, and plantain; a group of dwellings, some thatched, and some tiled; a small temple in the centre, devoted to a local goddess, with a priest, and various servants of the shrine, including a couple of dancing-girls; the whole being surrounded by about 500 acres of green fields, and having a large "tank" capable of watering the land for six months. The community is governed by its "headman", called *Munsiff* in the south, and *Potail* in many

other regions. He is a petty local magistrate, who settles disputes, directs the rural police, and collects the taxes. The accountant and notary (*Kurnam* or *Patwari*) keeps a register of the produce and the names of the little land-owners or tenant-farmers, and draws up deeds of sale and transfer. Then come the money-lender and banker, the schoolmaster, the physician, the carpenter, the blacksmith, shepherd, washerman, potter, barber, tattooer, tanner, and a little body of pariahs, Hindus of the lowest grade, living in their own quarter of the hamlet, and performing various menial services. The work of this little village-world goes on from year to year with the regularity of a machine, according to the traditions of past ages, little influenced by a foreign rule and a foreign civilization. The officials and the village artisans are paid in grain at the threshing-floor in harvest-time. The amusements consist in the gossip of the women when they meet to draw water at the village-well or at the tank; in the songs of the bard, and in the performances of wandering companies of jugglers, acrobats, snake-charmers, and animal-tamers. There are village dramas, and village feasts, and the schoolmaster, well-read in the thousands of stanzas of the *Maha Bharata* in the Tamil version, gives recitations or "preachings", on the summer nights of the season of leisure, to open-air gatherings around his hut. The most notable feature of the Hindu life in such communities is the extreme importance attached to the religion which affects the thought and action of every day and hour, in the pious native's anxiety to get rid of the need for future births after death in this world, and to attain eternal beatitude. The village sprang up around the temple, and the shrine of the local deity for ever remains the centre of regard with those who most eagerly of all things wish to acquire religious merit. The grand benefit derived from British rule by these peaceful and harmless villagers, living in scores of millions under our sway, is their freedom from plunder by robbers of every class. Other advantages brought by our administration are found in matters already mentioned with regard to irrigation, the relief of famine, and the supply of the one great medicine to fight the fever which is the peasant's deadliest foe.

In the Sind valley of the Indus, and in the sandy districts of the western Punjab, camels are used for agricultural labour; in every other part of India, horned cattle, including many varieties

of the humped breed, are solely employed for drawing the plough. British encouragement, by means of cattle-shows and prizes, has greatly improved the native breeds in parts of the Madras Presidency. The Central Provinces have a high-class breed of trotting bullocks, much valued for the wheeled carriages which are still largely used by the affluent in Indian travel. Buffaloes are the animals chiefly employed for draught in the deltaic regions, and the milk of their cows is the best for producing the ghee (*ghi*) or clarified butter so largely used by the natives with their rice and other grains. The Punjab is the chief source of horse-supplies for the native cavalry, and much progress has been lately made, in the same Province, in the breeding of mules for military use.

Since the middle of the nineteenth century, the British Government has paid attention to the important subject of repairing the waste of valuable forests caused by timber-cutters and charcoal-burners, and by the tillage called "nomadic cultivation", in which the hill-people clear the ground of trees by burning, and having neither oxen nor ploughs, exhaust the soil in a quick succession of crops raised by the hoe, and then move on to a fresh patch of jungle-ground. In 1864, an Inspector-General of Forests was appointed: three years later, candidates for employment in the Indian Forest Department were sent for training to the Forest-schools of Germany and France, and in 1885 a special department for this study was opened at the Royal Engineering College at Cooper's Hill, near Windsor. The destruction of the timber, now greatly needed for railway-sleepers and engine-fuel, has been arrested; replanting is progressing, and a regular system of conservation is in force. The chief trees and their value have been already noticed; the area of reserved forests now exceeds 13 millions of acres, bringing an annual nett-revenue (year 1890-91) of about £400,000.

The historical manufactures of India, still pursued on no mean scale, were once unrivalled in their display of manual dexterity and artistic taste. Long ages before cotton-weaving was known in England, the native looms were producing the cloth which has ever been, for both sexes, the chief material of Indian clothing. Calicut, on the Malabar coast, gave us the word "calico", and Dacca, in eastern Bengal, became renowned in the eighteenth century for the exquisite muslins compared to "woven air". The

competition of steam-power has overwhelmed the native hand-work in the matter of cheapness, and the fabrication of cotton goods by the old loom has become only a village industry, still important for the durability of its products, still supplying more than half the clothing of the Indian peoples. No diminution of taste and skill has occurred, and Indian cottons are yet unsurpassed for graceful design, delicacy of texture, and the purity and fastness of the hues imparted by the dye-vat. Of late years, however, British and native capital has summoned steam to its aid, and the cotton-mills of Bombay are yearly producing larger quantities of cloth. The first use of steam-machinery at Bombay for cotton manufacture took place in 1854, and within 25 years the erection of factories spread thence to Gujarat (Guzerat), Calcutta, Madras, Cawnpur, and Central India, the chief centre always being, as now, at Bombay. Recently there were, in all India, some 127 cotton-mills, with nearly 25,000 looms, 3,270,000 spindles, and about 118,000 persons, men, women, and children, employed thereon, the capital invested in these concerns certainly exceeding 7 millions sterling. The Bombay Presidency contained 90 of these factories, of which 65 were in the city and island of Bombay, with chimney-stalks emitting noisome smoke in the fashion of a Lancashire town. The competition with the British maker is greatly favoured by the raw material and the market being close at hand, and by the cheapness of labour not subject to strikes. On the other hand, the Indian manufacturer is hampered by the triple cost, as compared with Great Britain, of erecting mills and stocking them with the requisite plant; by the higher interest of money, the cost of fuel and other imported stores, and by the short staple of the native cotton. Manchester and her fellow-towns are thus enabled to hold their own in the higher qualities of yarn and cloth. The factory-workers are paid by the piece, boys and women being able to earn from 7 to 10 rupees (8s. 6d. to 12s.) per month, while a skilled man's wages, for the same period, vary from 30 to 65 rupees (36s. to nearly £4). A family of several members will receive as much as 100 rupees (£6) per month, which is a kind of opulence for the natives of India. The daily work-hours are twelve, from six to six, with an hour off for mid-day meal and a smoke. A Factory Act protects youth from excessive labour and from mischiefs incidental to the work. The yarn and twist are chiefly sent to China and

Japan, the calico to Arabia and south-east Africa. The local demand is a main support of the trade, and the Indian twist and yarn of the coarse and the medium qualities are superseding those of British production. About half a dozen woollen mills, producing blankets and cloth for coarse greatcoats and other garments, have lately arisen in the Punjab and at Cawnpur. In recent years the value of exports in cotton twist, yarn, and cloth reached close on 8 millions sterling: woollen manufactures over £220,000. A great manufacture of jute, mainly supported by British capital, has arisen near Calcutta, and lately there were 24 jute-mills in Bengal, with one at Cawnpur. These factories, as well as native hand-looms in the north of Bengal, make gunny-bags for wheat, wool, and other articles of commerce, working up about $3\frac{1}{2}$ million cwts. of raw jute, and employing nearly 70,000 men, women, and children. Over 171 millions of bags are annually exported from Calcutta to Australia for the wool-trade, to California for wheat, to Great Britain, the interior of India, and to Indian and other eastern ports. In the Punjab, the North-Western Provinces, and other parts of the country there were recently 22 breweries supplying over 5 million gallons of beer, and furnishing, in addition to the private local consumption and export-trade, more than 3 million gallons for the Commissariat department of the army. Steam paper-mills at Bombay and near Calcutta have now almost superseded the many small local manufactures, and three great leather-factories at Cawnpur, with much native hand-work in the same material, supply excellent saddlery, accoutrements, and other articles with a cheapness that has restricted importation from the home-country.

The native industries carried on in every village still form, taken altogether, the most important manufactures of India in weaving, pottery, iron and brass work, oil-pressing, ivory-carving, and the making of gold-lace. Little remains of the fine hand-loom fabrics once exported to Europe, but the extent of native work for clothing is still very great, though it is declining rapidly in the Central Provinces and in Bengal, and has been almost extinguished by the cotton-factories in Bombay Presidency. In the south, fine cotton fabrics are still made in the hand-looms of Arni, Masulipatam, Nellore, and other towns and districts. At Surat, Ahmadabad, Broach, Poona, and in other parts of Bombay Presidency good

printed cotton is produced, with some articles including a mixture of silk and borders of gold lace. In the towns, there is much native weaving of silk, and the Punjab and Sind, Agra, Haidarabad in the Deccan, and Tanjore and Trichinopoli in the Madras Presidency, have numerous weavers of mixed silk and cotton, the textures being often embroidered with gold and silver. Benares, Murshidabad, Ahmadabad, and Trichinopoli produce very rich pure silk brocades of most brilliant hue and elaborate patterns. In recent years, silk-mills worked by steam have arisen at Bombay, chiefly furnishing the Burmese market, and turning out of late above $2\frac{1}{2}$ millions of yards of silk piece-goods, and nearly 300,000 yards of mixed fabrics, with a total value of about £160,000. The beautiful and valuable shawls composed of the soft wool of the "shawl-goat" of the Himalayas are made in Kashmir and in some towns of the Punjab. Dacca, Patna, and Delhi have embroideries of muslin with gold and silken thread. In the north of India, including Bengal, carpets and rugs of cotton are made, and there is a large export to Great Britain of woollen carpets in pile, manufactured by criminals in the jails. Kashmir, the Punjab and Sind, and some parts of the centre and the south have weavers of the famous pile-carpets made of short lengths of coloured wool skilfully twisted into the threads of a strong ground-warp of cotton or hemp. The goldsmiths, silversmiths, and jewellers of India produce wonders of taste and skill in hammered work, chains and bracelets, silver filigree, parcel-gilt, gold and silver thread for embroidery and weaving, and work of all kinds in precious stones and pearls. The iron-work of the village smithery consists mainly of implements for the tillage of the soil. The artisans of the towns are still very skilful in ornamented sword-blades, chain-armour, damascene-work of gold on iron and steel, and of silver on bronze. The domestic vessels for the use of villagers are made by the native brazier, one of the chief articles of his handiwork being the ceremonial *lota* or globular bowl for ablutions. Benares has the best craftsmen in Northern India for brass and copper-work in domestic and religious utensils. The village potter turns out only inartistic earthenware for cooking purposes, large jars for storing grain, and floats for enabling persons to cross a swollen stream. Sind and the southern Punjab have craftsmen of a far higher stamp, producing beautiful ware in domestic vessels and glazed encaustic

tiles. Wood-carving, ivory-carving, and inlaying with ebony, ivory, tin-wire, sandal-wood, and brass-wire are the last occupations that need mention here.

The olden means of communication were rivers, canals, and very imperfect roads. The Ganges and the Indus conveyed merchandise and travellers from town to town, and bore the produce of the interior to the sea-board. In the centre and south, there are no navigable rivers, as the heat of the summer reduces the swift broad waters of the rainy season to paltry streams and stagnant pools, and the Narbada and the Godavari, with abundance of water, are hampered by rocky rapids. The steamers on the two great northern rivers, the Indus and the Ganges, lost their passenger-trade after the development of railways, but much of the traffic for heavy goods, needing only cheap and slow transmission, still passes to and fro on their waters. The Brahmaputra and the Irawadi are still almost untouched by railway competition, and in the Gangetic delta boats are the chief mode of access to every village, and the rainy season furnishes a highway for flotillas of craft laden with produce. Boat-racing is a favourite amusement in this region, and the villagers compete with much zeal in the many local regattas, sometimes ending with a procession of torch-lit vessels. Inland navigation is also prosecuted both on ancient and modern canals cut for the purpose, and on those provided for irrigation. The principal land-highway is the Grand Trunk Road, which passes up the Ganges-valley from Calcutta to the frontier on the north-west. This was planned in the sixteenth century as a military road, but was not completed until the days of Lord William Bentinck. The whole of the country under our direct rule now has, for local communication, chief roads well metalled, in stony districts with the calcareous limestone, and, in regions destitute of the best material, with broken brick as a foundation. Government-officials pay due heed to construction and repair, and safe bridges, made of stone or iron, cross all the smaller rivers. Bridges of boats afford a passage across the larger waterways, superseded by ferries during the flood-time of the rainy season. Avenues of trees along the highways supply a grateful shade to the wayfarer, who now sees wheeled vehicles conveying goods instead of the former pack-animals—bullocks, mules, or asses,—and is passed by the post-cart which has largely replaced the *dāk* (dawk), or relay of native

runners who, in earlier times, made their way singly along the jungle-path, shaking a bunch of iron rings to scare away the hyænas. In the hill-country, travellers are still carried in palanquins, covered boxes with wooden shutters like venetian-blinds, borne by poles on men's shoulders, or in wheeled carriages drawn by men or bullocks or ponies sure of foot.

The railway-system of India began, as we have seen, in the days of Lord Dalhousie, and the first railway-ticket was bought in 1853, for a journey from Bombay to Thana (Tanna), now a station on the Great Indian Peninsula railway, 21 miles north-east of that city. The natives of the villages declared that the wonderful carriages that flew along with the speed of the wind were dragged by a fire-devil whom the "Sahibs" locked up in an iron box, but the people of India, more intelligent and less conservative than the Chinese, have now discovered that the fire-devil works more and better miracles than all their saints from the remotest age, and is doing more good than all other resources of civilization. A minute of Lord Dalhousie sketched out the main railways or trunk lines destined to cross the peninsula in joining all the great towns and military centres, and the original scheme was developed and supplemented by Lord Mayo and his successors. The earliest lines were "guaranteed railways", constructed by private companies to whom the Government undertook to pay a minimum interest of 5 per cent on the expended capital, with a half-share for the State in all profits above that amount, and a reserved right of purchase from the companies after a term of years. These lines were made under Government-supervision, and were managed, to a certain extent, under State-control. The gauge was one of $5\frac{1}{2}$ feet, or nearly 10 inches wider than that of British lines, and the cost of construction averaged £17,000 per mile, a very heavy charge for a country like India, having regard to the probable earnings. In 1869, Lord Mayo saw that "the alternative", in his own words, was "cheap railways or none". His desire was to afford benefit to the native population in guarding against increase of taxation, and he therefore started a system of State-railways, constructed with capital raised by the Government, executed by Government-engineers, on a gauge of $3\frac{1}{4}$ feet in some cases, costing less than £6000 per mile, and provided with lighter rolling-stock. A subsidiary set of lines thus penetrated the interior of the greater provinces within

the triangle formed by the broad-gauge lines connecting Bombay, Calcutta, and Lahore. It was in 1871 that Bombay became directly connected with Calcutta and Madras. A third class of railways consists of those that are worked by private companies as "assisted lines", with a low rate of interest guaranteed by Government for a limited time, and aided in their construction by free grants of land and in other ways. The Native State lines have been constructed by capital locally provided, and the execution and management have been, in most cases, intrusted to persons employed by the Indian Government, or by the companies of main lines to which the Native State railways are subsidiary. Since 1879, the first class of railways, or "guaranteed lines", still worked by the original companies, have been mostly bought up by the State. It is impossible to give here any complete account of the railway-system, now extending over 18,000 miles.

The State-railways, including the guaranteed lines, comprise (1) the East Indian, running from Calcutta to Delhi, with a branch to Jabalpur (Jubbulpore), in the Central Provinces; (2) the Eastern Bengal and (3) the Northern Bengal, the latter of which, starting from a point on the former, runs northwards to the foot of the Himalayas, and thence sends forth a shoot in the shape of a light 2-feet gauge line as far as the famous health-resort Darjiling, acquired by the Indian Government in 1835, with a small district round about, ceded for an annual payment by the Raja of Sikkim; the place is thus brought within twenty-four hours of Calcutta. Fourthly, the Great Indian Peninsula, starting from Bombay, sends out one arm north-east to Jabalpur, with a branch to Nagpur, and runs south-east to a junction, at Raichur, in the south of the Nizam's dominions (Haidarabad State) with (5) the Madras Railway, running from the chief city of the Presidency to Raichur, as above, and also across the peninsula to Calicut, with a branch to Bangalore. The Oudh and Rohilkhand line connects, by means of several branches, Lucknow, Cawnpur, Benares, Aligarh, Bareilly, and other important points. The Bombay, Baroda, and Central India runs due north, through Gujarat, to Ahmadabad, and gives a passage, through junction with Rajputana lines, to Agra and Delhi, with their connecting railways to the east and the north-west. The important North-Western includes the Sind, Punjab, and Delhi line acquired by the State in 1886, and thus connects

Delhi with Lahore, Peshawar, and Karachi (Kurrachee). The South Indian, a narrow-gauge, conveys passengers and goods from Madras southwards to Pondicherri, Tuticorin, Tinneveli, and other places of that region. The Bengal-Nagpur Railway taps the great wheat-growing country of the Central Provinces, joining the Great Indian Peninsula line at Nagpur, and thus affording almost straight communication between Bombay and Calcutta. The Indian Midland runs from Bhopal, in Central India, by way of Jhansi and Gwalior to Agra. Several smaller lines, in Bengal, in the Deccan, in the north, and the north-west, afford needed accommodation to travellers, special short railways being, in some parts, constructed to native shrines which are yearly visited by vast numbers of pilgrims from all quarters of the land. About 1500 miles of railway, constructed at the expense of the rulers, exist in the principal Native States of the centre and south. The Gwalior and Indore lines were made from a loan of money advanced to the Indian Government by the Maharajas Sindhia and Holkar, and are under state-management. The most remote, in place, the most recent, in time, of all these priceless labours of the Indian "navvy", with his stark, black-brown shiny skin, and three pennyworth of calico round his hips as sole attire, is the Sind-Pishin Railway, running far beyond the Indus, through the Bolan Pass, to Chaman, on the north-west frontier of British Baluchistan, and only 60 miles south-east of Kandahar. The strategic value of the line is very great, as the territory is the meeting-place of many routes, practicable for troops, leading from Kandahar to Sind and to the Punjab frontier. The camels used for so many ages by caravans of merchants from Herat, Persia, Bokhara, and Samarcand have been at last, in the advance of the British Empire, disestablished by the iron horse, and the end of another chapter of old-world history has been written. At the eastern end of the Bolan Pass is Sibi, whence the line runs by a very tortuous route through the narrowest and most difficult part of the Pass, crossing the Bolan ravine nine times in the space of four miles.

Many great engineering-works have been achieved on the Indian railway-system. The widest rivers and the most formidable swamps have been traversed, and huge embankments of the most massive construction carry the lines over the shifting soil of the delta of the Ganges. In 1875, the Goalanda terminal station

of the Eastern Bengal Railway stood upon an artificial embankment near the edge of the water, at the confluence of the main streams of the Ganges and Brahmaputra. The place was protected by spurs of masonry running out into the river, the whole works having cost above £100,000. In August, the flood-waters came down with violence so destructive that the solid protective masonry, the railway-station, and the magistrate's court were swept away, and deep water thenceforth rolled over their sites. A new terminus was erected two miles inland from the former river-bank, soon to be overwhelmed in its turn, and only temporary buildings are now set up on sites which have been repeatedly changed. Such is the power of nature as displayed by these Indian rivers, the Ganges and the Brahmaputra, which yearly undermine and then tear away many thousands of acres of land, depositing the soil farther down in their channels, and leaving towns such as Rajmahal, the old Mohammedan capital of Bengal, and Kanauj, in the North-Western Provinces, high and dry in ruin. The ancient sacred stream of the Ganges, running through the Districts of Hugli and the twenty-four Parganas, is now an extinct or dried-up river, its course marked by a line of tanks and muddy pools, and with shrines, temples, and burning-ghats, or flights of steps where the Hindus burn the bodies of their dead, along high banks that overlook its deserted bed. One of the grandest triumphs of railway-engineers in India was attained in the construction of the Bhor-Ghât Incline, on the Great Indian Peninsula Railway. The pass called the Bhor-Ghât ascends a stupendous ravine about 40 miles south-east of the city of Bombay, rising to a height of 2027 feet above sea-level, or 1831 feet above the plain at its base. This Ghât was regarded, in olden times, as the key of the Deccan, a post which could be held by a small force against a host of foes attempting to penetrate inland from the sea-board. In 1804, Sir Arthur Wellesley made the route practicable for artillery, and constructed a good road from the top of the Ghât to Poona. In 1830, Sir John Malcolm, then Governor of Bombay, opened a fine military road, giving passage to carriages for the whole distance through the gorge. In 1861, after five years' labour, and the expenditure of nearly £600,000, or £40,000 per mile of road for 15 miles of ascent with an average gradient of 1 foot in 48, the Bhor Ghât Incline was opened by another Governor of Bombay,

Sir Bartle Frere. Half-way up, as the railway rises from Karjat, in the valley below, to Lonauli, at the top of the Ghât, is a plateau with the reversing-station rendered necessary by lack of room for a curve. The railway therefore runs on to the plateau in the form of a V, the left-hand shank of the letter representing the line of ascent from the valley, and the right-hand shank being the line still ascending to the top of the pass. Both the up and the down trains run into the reversing-station with their engines facing in the same direction, and are stopped at about 100 yards from the brink of a precipice running down sheer for 200 feet to a jungle-grown ravine. The engine is then shunted round the train, and attached to what was formerly the rear. No platform exists, for none is needed, and no buildings are seen save a hut for the use of the pointsmen. A striking impression is produced by the contrast between the inventive work and the noisy presence of man as a train full of passengers comes thundering on to the plateau, and the previous utter loneliness of the scenery displaying, to right and left, a wild tangle of gorge and beetling cliff, giddy precipice and ravine, bare rock and rich foliage of undergrowth and tree, while the eye, looking down for a thousand feet, wanders over the fair stretch of the Konkan plain, the broad belt of fertile land at the foot of the Ghâts, to gleams of the waters of the Indian Ocean that now and again flash through the sultry haze on the utmost line of sight. Amid rugged grandeur charmingly softened by tropical colour, the great Incline is carried with twists around shoulders of the mighty hills, with nearly a mile and a half of tunnelling through intervening crags, creeping along narrow ledges on the face of the precipice, passing over 8 viaducts from 150 to 500 feet in length, and from 45 to 160 feet in height above the footing, the largest of these works having eight semicircular arches of 50 feet span. Smaller ravines and water-courses are crossed by 18 bridges of spans from 7 to 30 feet, and by 58 culverts of from 2 to 6 feet in width. Over 1,600,000 cubic yards of earth were removed by cuttings, and about 1,850,000 cubic yards were piled in embankments, of which the highest rises to 74 feet. The telegraphs of India, as begun under Lord Dalhousie, have been already described, and we need only state here that there are about 40,000 miles of line, with thrice that length of wire, and over 1000 telegraph-offices. The number of letters, newspapers, and packets despatched in the

year 1891-92 was nearly 350 millions, deposited in about 21,500 post-offices and letter-boxes. In the year ending March 31st, 1892, the mails travelled over nearly 78,000 miles, of which above 56,000 were done by steamers, rowing or sailing boats, and "runners" (the *dák*); about 4000 miles on horseback and by carts; and 17,000 miles by railway.

Particulars of the amount and value of some chief Indian exports, taken from late statistical accounts, have been already given, to which we may add hides and skins worth over $5\frac{3}{4}$ millions sterling; dyes to the value of above 6 millions; spices, nearly $\frac{1}{2}$ million; timber in the rough and manufactured, £590,000; and raw wool, nearly $1\frac{3}{4}$ millions. For a most interesting account of past and present Indian trade and commerce in every kind of produce and manufacture we must again refer readers to Sir W. W. Hunter's *The Indian Empire*, 3rd edition (1893). After the Portuguese, the Dutch, the Danes, and the French had in succession failed in creating great centres of trade, British enterprise and energy, at an early period of our rule, caused the growth of large mercantile towns. A new era of production on a great scale has come in the co-operation of capital and labour, replacing to a large extent the small household manufactures of former days. In other words, steam-machinery, mechanical invention and skill, are doing for our Eastern Empire just what they have effected in the British Isles since the latter half of the eighteenth century. Calcutta, Bombay, and other great industrial cities have slowly risen to their present size and wealth, and the whole country has passed into a new and more advanced stage of economic civilization. A vast territory, which did not produce, in 1700, staples for exportation to the annual value of 1 million sterling, had a total foreign trade (including Burma here as "India"), as given in a recent statistical return, to the amount of over 206 millions, more than 110 millions being exports of the kind already detailed. The imports consisted mainly of yarns and textile fabrics, $37\frac{1}{2}$ millions; bullion and specie, nearly $18\frac{1}{2}$ millions; metals, raw and manufactured, including machinery and mill-work, nearly 10 millions; books, paper, and stationery, over 1 million; coal and coke, nearly 1 million; glass and its fabrics, £788,000; jewellery, precious stones, and plate, £289,000; drugs and medicines, £522,000; malt liquors, £427,000; provisions, including dried fruits, over $1\frac{3}{4}$ millions; salt, £790,000;

raw silk, £1,360,000; spices, £873,000; spirits, £686,000; sugar, over $2\frac{3}{4}$ millions; tea, £572,000; wines and liqueurs, £342,000. Of the whole import and export trade in the return with which we are dealing, over 90 millions sterling in value was with the United Kingdom, the next countries, at a great interval, being China, France, Germany, the Straits Settlements, the United States, Belgium, Italy, Egypt, Austria, and Ceylon. Over 1700 steamships, with tonnage exceeding $3\frac{1}{2}$ millions, went to and from Indian ports by way of the Suez Canal. The total tonnage entered and cleared at Indian ports (over 10,700 vessels) in one year recently amounted to nearly $7\frac{3}{4}$ million tons, of which over 6000 ships ($6\frac{1}{2}$ million tons) were British or British-Indian vessels. The foreign vessels numbered over 1400, of nearly a million tons; the native craft exceeded 3000, with an average tonnage little exceeding fifty. With all her extent of sea-board, India has but few ports. As regards the sea-borne trade with foreign countries, Calcutta has the commerce of Lower Bengal and of the whole valleys of the Ganges and Brahmaputra; Bombay conducts the trade of Western India, the Deccan, Gujarat, and the Central Provinces; Karachi that of the Indus valley. At these points the chief lines of railway reach the sea, Calcutta and Bombay having nearly four-fifths of the whole foreign trade between them, while Madras had less than $5\frac{1}{2}$ per cent, and Karachi, with a steady growth in recent years, nearly $4\frac{1}{2}$ per cent. The growth of Indian commerce, since the adoption of free trade for India, is well illustrated by the fact that in 1834 the exports were valued at under 10 millions, and the imports at about $2\frac{1}{2}$ millions sterling. Since 1840, the imports have increased above ninefold, and the exports about sevenfold.

The coasting-trade is carried on through little ports along the whole eastern and western coasts, the people of the Gulfs of Cutch and Cambay, on the Malabar coast, and in the extreme south having numerous bold and skilful sailors. A considerable frontier-traffic, for which no figures can be given except that recently the total annual imports and exports probably exceeded 5 millions sterling in value, is carried on with Afghanistan and her neighbours, and with Kashmir, Nipal (Nepaul), and other Himalayan and trans-Himalayan peoples. The imports consist chiefly of raw silk, dried fruits and nuts, dyes and drugs, lac and other

jungle produce, and, from Nipal, also of food-grains and oil-seeds, timber and cattle. The exports are mainly cotton goods, tea, salt, indigo, metals, grain, sugar, and spices. The vast internal trade of India, far exceeding her foreign commerce in amount, consists in gathering agricultural produce from countless villages and districts for transmission to the ports; in the distribution of imported goods, and in the interchange of native commodities. Most of the traffic is in native hands, the whole number of people connected with trade, manufactures, and commerce in India, including the families subsisting thereon, being estimated, by the careful census of 1891, at over 56 millions. The local trade is carried on at the *bazars* of the towns, at weekly rural markets, by travelling dealers and agents, and at fairs held annually or at shorter intervals. A gay scene is presented by the yearly fair held at Karagola, in Lower Bengal, on the old route from Calcutta to Darjiling. For ten days, a large sandy plain is covered with streets of small shops made of bamboos and matting, and the people chaffer, with Hindu pertinacity and cunning, over goods of every kind except the local staples of jute, tobacco, and grain. Cloth of every texture, from Dacca muslin to thick British woollen; ironware, furniture, boots, shawls, silks, brocades, hand-mills, cutlery, drugs, and many articles of British make, from soap to umbrellas, and matches to buttons, paper, and candles, here exchange owners in February.

CHAPTER IX.

INDIA—*Continued.*

BRITISH PROVINCES AND ADMINISTRATION: NATIVE STATES.

Political divisions of the country. AJMERE—Physical features and products—Wise rule of Colonel Dixon—Contentment of the people during the Mutiny—Administration—Ajmere and other principal towns. ASSAM—Extent and population—Invasion of the Ahams and Burmese—Aboriginal tribes—Products—Manufactures—Administration—Education and sanitation—Chief towns. BENGAL—Countries of Lower Bengal—Bengal Proper—Behar—Orissa, the high-place of Hinduism—The car-festival and worship of Jagannath—Chutia Nagpur—Administration—People—Chief towns—Calcutta. BERAR—Area and population—Chief towns. BOMBAY—Its divisions—Administration—Sind—Rann of Cutch—Countries of the Northern Division—of the Central Division—of the Southern Division—Chief towns—Bombay. CENTRAL PROVINCES—Area, population, and products—Chief towns. COORG—Loyalty of its people—The Raja and his daughter Princess Victoria Gauramma—Mausoleums at Merkara. MADRAS—Extent, productions, and people—Industries—Administration—Chief towns—Madras. NORTH-WEST PROVINCES and OUDH—Area and population—Administration of the Provinces—Chief towns—Benares—Sanitaria or hill-stations—Characteristics of Oudh—Lucknow and Faizabad. THE PUNJAB—Physical character and population—Administration—Trade—Chief towns—Lahore—Delhi—Simla. Character of British Administration in India—The District Officer—Monopolies of opium and salt—Extent of municipal government—Money, weights, and measures—Progress of education—Newspapers and books. British Baluchistan and Sikkim—The Andaman, Nicobar, and Laccadive Islands. The Native States—Their relation to British rule—Area and population—Statistics of Native States under the respective Governments—Shan States—Manipur—Rajputana States—Kashmir—Haidarabad—Baroda—Mysore—Chief towns in the Native States.

The Provinces now under direct British rule, apart from Burma, are AJMERE, ASSAM, BENGAL, BERAR, BOMBAY ("Presidency", with SIND), the CENTRAL PROVINCES, COORG, MADRAS, the NORTH-WESTERN PROVINCES (with OUDH), and the PUNJAB. Of these, MADRAS and BOMBAY are "Governments", ruled by "Governors"; BENGAL, the NORTH-WESTERN PROVINCES, and the PUNJAB are "Lieutenant-Governorships". OUDH has been incorporated, since 1877, with the North-Western Provinces, and the Lieutenant-Governor of that territory is also "Chief Commissioner" of Oudh. The CENTRAL PROVINCES and ASSAM are under "Chief Commissioners"; AJMERE, BERAR, and COORG are ruled by "Commissioners". We proceed to a brief account of these provinces in their alphabetical order.

AJMERE, or strictly, AJMERE-MERWARA (from its Sub-division in

the hill-district, inhabited by descendants of old robber-tribes), is an isolated province in Rajputana, surrounded by Native States, and has an area of 2711 square miles, with a population of about 550,000. The Viceroy's Agent for Rajputana is *ex officio* Commissioner, having his head-quarters and summer residence on the famous sacred mountain, Abu, with beautiful Jain temples, in Sirohi State. Ajmere contains the central portion of the Aravalli Hills, rising to a height of nearly 3000 feet near the town of Ajmere, and running to the south-west. The district lies high, at the centre of the watershed, and has no important rivers, but is well irrigated by several hundreds of "tanks", formed by embanking the gorges of hill-streams, works mainly due to the wisdom and energy of Colonel Dixon, who held sway as administrator from 1836 to 1857. Much has been done to clothe again with woods the denuded hill-sides, and the large game includes leopards and the wild pigs hunted by the Rajput land-owners. The beneficial rule of Colonel Dixon had so far won the hearts of the people that little trouble arose during the revolt of 1857. Two regiments of Bengal infantry and a battery of Bengal artillery rose at the military station of Nasirabad (Nusseerabad), but a regiment of Bombay infantry protected the European residents, and soldiers of the Merwara battalion faithfully guarded the Ajmere treasury and magazine. The mutinous Sepoys went off to Delhi, and peace abode in Ajmere, where the peasantry, under just and kindly British rule, would have nothing to do with the cause of rebellion. Nearly nine-tenths of the people are Hindus in religion, and the rest are Mohammedans. There is a large class (about 15,000) of Rajput land-owners, a proud, warlike, indolent race, carrying arms, and great consumers of opium. The best tillers of the soil are Jats, a race physically fine, industrious and skilled in their vocation, probably of Scythian origin, numbering nearly 5 millions in all India, of whom about 35,000 dwell in Ajmere. The Gujars, mostly Mohammedans, as are the Jats, are in about equal numbers, devoted to grazing rather than to cultivation. The chief crops are maize, barley, *joar*, *bajra*, cotton, pulses, and oil-seeds. In 1868-69, a severe famine caused the death of over 100,000 people and one-third of the cattle, and impoverished the surviving cultivators, who are still deeply indebted to the money-lenders. The wages of coolies have, however, risen from about $2\frac{1}{2}d.$ per day in 1850 to 1s., and the Rajputana State Railway and Rajputana-

Malwa line, giving access to other and fertile regions, have cheapened many commodities and provided for relief in any future time of scarcity.

As regards administration, the Commissioner is the civil and criminal Judge, with the control of police and prisons, education and registration, aided by two Assistant-Commissioners, and by forty-five officers with various magisterial powers. Education is in a backward state, though the United Presbyterian Mission has about 2000 pupils in 60 schools, and the whole Division contains 140 schools with about 5500 learners. The Ajmere College, having over 200 students enrolled, is affiliated to Calcutta University, and the Mayo College, planned by the Viceroy in 1870, and carried on since 1875, is an institution supported by the State and by Rajput chiefs, for the training of the sons of the nobles of the land. The town of *Ajmere*, now having about 70,000 people, lies 677 miles north of Bombay, on the lower slope of the Taragarh Hill, crowned by a fortress of the same name at the height of 2850 feet, nearly surrounded by inaccessible precipices, and elsewhere defended by a wall of huge stone-blocks, 20 feet in thickness. The place, once an important stronghold, is now dismantled of artillery, and has been used since 1860 as a sanitarium for the European troops stationed at Nasirabad. On the north side of the town is the Ana Sagar Lake, overlooked by the Daulat Bagh ("Garden of Splendour") constructed in the sixteenth century by the emperor Jahangir. Elegant marble buildings, giving a full view of the town, stand on the edge of the limpid waters that reflect the hills around the spacious grounds, full of ancient and stately trees. This delightful spot is now an abode of the Commissioner. Ajmere is the centre of the transport-trade in sugars and cotton-cloth, as chief imports, and raw cotton, grain, and poppy-seeds as exports, the local business having much increased since the railway displaced camels and bullocks. The other chief towns are *Nasirabad*, having 21,000 people, where the cantonments, laid out in 1818 by Sir David Ochterlony, are held by troops of the Bombay army; and *Beawar* (16,000), founded in 1835 by Colonel Dixon, a spacious place with tree-planted streets, houses of masonry with tiled roofs, and the chief cotton-trade of the Province.

ASSAM, lying on the north-eastern border of Bengal, and including the valleys of the rivers Brahmaputra and Barak or Surma,

with the mountainous watershed between them, is about the size of England, with an area of 49,000 square miles, and a population now of nearly $5\frac{1}{2}$ millions. Ceded to us by the Burmese king in 1826, and since extended by lapse of part of Cachar in 1830 and by annexations of hill-country due to conquest, the Province assumed its present form of administration in 1874, when the eleven Districts were separated from Bengal. Assam proper is simply the Brahmaputra valley, the people, though they have now largely adopted the Brahmanical religion, being distinct in race, language, and history from the Hindus. There and in Cachar (in the Barak valley) the population is mostly of Indo-Chinese stock, with much admixture in recent years from Bengal immigration for labour in the tea-plantations. At some time in the thirteenth century, the Ahams, a people akin to the Siamese, invaded the country from the east and slowly made their way, and they are supposed to have furnished the country with its present name. It was early in the nineteenth century that the Burmese conquered the land, and displayed the grossest tyranny. The people of the hills, especially the Nagas and Lushais, are of an uncivilized and predatory character. The Khasis and the Garos, other aboriginal tribes, with their primitive religion, customs, language, and nationality unchanged, live in hill-ranges of that name, and each exceed 100,000. The Kacharis, a barbarous race in the lower part of the Brahmaputra valley, number over $\frac{1}{4}$ million, and the whole aboriginal population is reckoned at $1\frac{1}{2}$ millions, of whom two-thirds, however, have abandoned their ancient faiths for Hinduism. The minerals of the country include much excellent coal, now beginning to be worked; and immense beds of limestone which have for ages given to Bengal most of her supply as "Sylhet lime", from the name of the District in the lower valley of the Barak or Surma. The forests furnish much valuable timber and caoutchouc (india-rubber), which are exported to Bengal. The staple crop is rice, grown three times a year in the Brahmaputra valley on soil requiring neither irrigation nor manure, but fertilized by silt deposited in overflow. Mustard-seed, sugar-cane, maize, betel-nut, tobacco, jute and cotton are also produced, and the people are generally in a prosperous condition, under the light taxation of a Government that is the superior landlord, with none to intervene as oppressors between the supreme authority and the actual tillers of the soil.

A heavy rainfall, occurring in eight or nine months of the year, makes the climate somewhat temperate and very damp, with much fog in the winter, and causes the vegetation to be luxuriant and tropical in character. The tea-industry has been already mentioned. The manufactures, of a petty nature, include cotton-cloth, brassware, grass mats, and ivory-work in material obtained from the still numerous elephants of the jungles, and in Sylhet lime-burning, boat-building, and sugar-boiling are carried on. The commerce is mainly conducted by the waters of the two chief rivers, everywhere navigable for steamers and other craft. Internal communication is favoured by excellent roads, tramways, and the beginnings of a railway-system both in Cachar and Upper Assam.

The Chief Commissioner is assisted by a Commissioner for the Assam Valley, and by thirteen Deputy-Commissioners, one for each District, in charge of fiscal, executive, and some of the judicial affairs. These posts, under the "non-regulation" system, are open to military officers and to "uncovenanted" civilians, as well as to members of the "covenanted" or regular Civil Service, Sylhet alone being reserved for a covenanted officer. Order is maintained, within the Province and on the frontiers, by about 1600 police, officers and men, and by a well-armed and semi-military force of 2200. *Chaukidars*, or village-watchmen, about 4500 in number, exist in the Districts of Goalpara, Sylhet, and Cachar. Four regiments of Native Infantry, numbering 3325 officers and men, form the usual garrison. About 1300 schools, with 41,000 pupils, including eleven "High Schools", are under Government-inspection, and about 6000 children are taught in middle-class English and vernacular institutions. The primary schools, in 1880-81, had over 31,000 boys, and 1130 girls under instruction. Oral teaching, chiefly religious, is given in a number of indigenous, or unaided and uninspected schools. The educational state of Assam may be estimated by a recent return, which showed over 95 per cent of the males, and 99·87 per cent of the females to be "illiterate". In sanitary matters some progress has been made in reducing malaria by clearing jungle, in enforcing cleanliness in towns, and by vaccination, these measures being under the control of a Deputy Surgeon-General, who is also Sanitary Commissioner. The seat of government is at *Shillong*, a small town in the Khasi Hills District, on a plateau about 5000 feet above sea-level, a healthy

place conveniently situated between the Brahmaputra and Surma (or Barak) valleys. A fine road leads thither from Gauhati, a town of about 12,000 people on the south bank of the Brahmaputra, ancient capital of the Hindu kingdom of Assam before the Ahoms appeared on the scene, and now a chief place of the river-trade. Shillong (about 4000 people) has good official buildings, an excellent water-supply from the hills, a church, and a regiment of Bengal infantry as garrison. The largest town in the province is *Sylhet*, on the right or north bank of the Surma, with 18,000 inhabitants, largely engaged in the river-trade. *Sibsagar*, on the Dikku river, and *Dibrugarh*, in the Lakhimpur District, are centres of the tea-trade, and *Silchar*, in Cachar District, on the south bank of the Barak (Surma), is the centre of the tea-plantations in that quarter. One trouble of Assam is a liability to earthquakes, which in 1869 did great damage at Silchar and Sylhet.

In coming to BENGAL, we begin to apprehend the vast extent of our Indian Empire. There is now, strictly speaking, no "Bengal Presidency" in the administrative sense, except for military affairs, as already shown. *Lower Bengal*, the Lieutenant-Governorship, largest and most populous of all the British Provinces, includes *Bengal Proper*, *Behar*, *Orissa*, and *Chutia Nagpur*, with an area of 151,000 square miles (about three Englands), and a population (1891) exceeding 71 millions, one-third of the total numbers in British India. Above 4½ millions have been added, by natural increase, since 1881, and the density is now about 480 per square mile. The geography of this great region needs little description beyond that which has been incidentally given, and the natural products, with the occupations of the people, have been already indicated. *Bengal Proper*, stretching from Orissa to Lower Burma along the sea-board, and inland from the coast to the Himalayas, includes the united deltas of the Ganges and the Brahmaputra and much of the valleys of those mighty rivers and their tributaries. This territory has an area of over 70,000 square miles, exclusive of the unsurveyed and half-submerged Sundarbans, estimated at about 6000. *Behar*, with an area of 44,000 square miles, lies on the north-west of Bengal Proper, and includes the higher valley of the Ganges as far as the North-Western Provinces. *Orissa* (9000 square miles) comprises the rich deltas of the Mahanadi and adjacent rivers, with the Bay of Bengal on the south-east and the Tributary

Hill States to the north-west. *Chutia Nagpur* (27,000 square miles) lies between Behar and Orissa, but stretches far westward into the hill-country.

Behar contains a population of over 23 millions, dwelling in about 77,400 villages and towns. The country is generally flat, is well supplied with canals, railways, and roads, and has the manufactures of opium and indigo as its chief industries. Of *Orissa* we have already seen much in connection with the famine of 1866. The great crop is rice; the chief import, cotton piece-goods. Wheat, pulse and pease, oil-seeds, hemp, tobacco, cotton, sugar-cane, and betel are also grown, the main area of tillage being in the hands of small cultivators, so that 60 per cent of all the farms are below 10 acres. Education is well advanced for India; recent returns show that one boy out of three, of suitable age, attends at the 9000 schools, with 106,000 pupils. British Orissa has a population of about 4 millions; the Tributary States, 17 dependent territories in a wild region between the alluvial delta and the Central Indian plateau, have an area of about 15,000 square miles and a population of $1\frac{1}{2}$ millions. Orissa is the very focus of Hinduism, in its essential spirit and most concentrated form. The Brahmans worship Siva, the All-Destroyer, in whose honour shrine after shrine is found on the southern bank of the river Baitarani. Vishnu is the popular god, revered for ages in the town of *Puri*, (commonly called Jagannath) under his title of Jagannath (Juggernaut), the "Lord of the World". The famous Car-Festival is often attended by 90,000 worshippers, and the number has reached nearly 150,000. Of the pilgrims from all parts about 10,000 yearly perish from fatigue and disease due to insanitary crowding; the fable concerning self-immolation under the wheels of the great car has been already exposed. Every fiscal division of the country has a community of ascetics; nearly every village has its shrine and consecrated lands; every town contains many temples of the god. For two thousand years, Orissa has been the Holy Land of the Hindus, with four regions of pilgrimage, of which the two now most frequented have their head-quarters at Jajpur, sacred to the wife of Siva, and at Puri, the chief place, as above, of Vishnuite devotion. In this isolated corner of Orissa, in the words of Sir W. W. Hunter, "on these inhospitable sands, Hindu religion and Hindu superstition have stood at bay for eighteen centuries against the

world. Here is the national temple, whither the people flock to worship from every province of India. Here is the *Swarga-dwara*, the Gate of Heaven, whither thousands of pilgrims come to die, lulled to their last sleep by the roar of the eternal ocean. Twenty generations of devout Hindus have gone through life, haunted with a perpetual yearning to visit these fever-stricken sandhills." When the Province was occupied by British troops on its annexation in 1803, Lord Wellesley gave express orders that the temple of Jagannath, and the religious prejudices of the Brahmans and pilgrims should be respected. On this, a deputation of Brahmans came into the camp and placed the temple under our protection without the striking of a blow. All the payments for charitable uses established by the previous Maratha (Mahratta) rulers were continued by the British Government, including the superintendence of Jagannath's shrine, and the lands thus granted by the State have a present annual value of £4000. For a most graphic and interesting account of the growth and present state of the worship of Jagannath we refer our readers to Sir W. W. Hunter's *Orissa*, or to the condensed account by the same author, given in the articles *Orissa* and *Puri Town* in his invaluable *Imperial Gazetteer of India*. We may note, as matter of meditation for Christian philosophers, the same writer's statements that "the true source of Jagannath's undying hold upon the Hindu race consists in the fact that he is the god of the people", and that his worship is "a perpetual and visible protest of the equality of man before God". "In the presence of the Lord of the World, priest and peasant are equal. The rice that has once been placed before the god can never cease to be pure, or lose its reflected sanctity. In the courts of Jagannath, and outside the Lion Gate, 100,000 pilgrims every year are joined in the sacrament of eating the Holy Food (*mahaprasad*). The lowest may demand it from, or give it to, the highest. Its sanctity overleaps all barriers, not only of caste, but of race and hostile faiths; and a Puri priest will stand the test of receiving the food from a Christian hand." It is this ennobling spirit, combined with a catholicity of worship that embraces every form of Indian belief, every Indian conception of the deity, every species of ritual, which has given such enormous sway to the religion of the god whose devotees lay precious metals and jewels, and charters and title-deeds of lands, at his feet, and to whose service Ranjit Singh, the Lion



WORSHIPPERS PROSTRATING THEMSELVES BEFORE THE FAMOUS CAR AT THE FESTIVAL OF JAGANNATH.

In the province of Orissa is situated the city of Purí, to which the people flock to worship from every part of India. Here is situated the great national temple of Jagannáth (or Juggernaut), the ancient deity of the Hindu race. The service of the temple consists in a daily round of ceremonies, and of great festivals at stated periods. The most important of these is the Car Festival. The sacred Car is 45 feet in height, 35 feet square, and is moved upon sixteen large wheels. When the image of the god is placed upon the Car, music strikes up, drums beat, cymbals clash, and a dense body of devotees move slowly forward, dragging the huge structure, while others jump, shout, or cast themselves on the ground in prayer. The distance from the temple to the god's country house—the destination of the image—is only about a mile, yet the labour of dragging the Car is so great that the journey takes several days. In this vast and excited crowd of 100,000 pilgrims accidents usually occur, but the old European belief that the devotees deliberately cast themselves under the wheels of the Car has no basis in fact. Death in this mode is a thing entirely opposed to the spirit of their religion.



W. H. MARGETSON.

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WORSHIPPERS PROSTRATING THEMSELVES BEFORE THE FAMOUS CAR
AT THE FESTIVAL OF JAGANNATH.

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of the Punjab, bequeathed the Koh-i-Nur (Kohinoor) or Mountain of Light, that now, on great occasions, gleams in a brooch adorning the attire of the Empress of India.

Chutia Nagpur, in its full extent, includes nine Tributary States to the west, and has an area of 43,000 square miles, with a population exceeding $5\frac{1}{2}$ millions. The country produces rice and the other usual grains, as well as some tea, cotton, and tobacco. There is much hilly ground and jungle, with carnivorous animals and abundant winged game. The aboriginal tribes, Kols, Santals, Gonds, &c., are about one million in number.

The whole of the great region composed of these four territories, collectively known as Bengal, is portioned into nine Divisions, each ruled by a Commissioner. Five of these, the "Presidency" Division, including Calcutta and neighbouring districts, Bardwan, Rajshahi, Dacca, and Chittagong, form Bengal Proper; Patna and Bhagalpur make up Behar; Orissa and Chutia Nagpur are each a Commissionership or Division. These are again subdivided into 47 Districts, varying in size from 8 square miles (Calcutta city), and 23 square miles (Calcutta suburbs) through Howrah (476 square miles) a district near Calcutta, to Lohardaga, in Chutia Nagpur, with an area of above 12,000. In Bengal we have a population that "exhibits every stage of human progress, and every type of human enlightenment and superstition—from the sceptical educated classes, represented by the Hindu gentleman who distinguishes himself at Oxford or a London Inn of Court, to the hill chieftain who a few years ago sacrificed an idiot on the top of a mountain to obtain a favourable decision in a Privy Council Appeal". A large part of the people belongs to the same Aryan race as most Europeans, with characteristics profoundly modified by circumstance and time. In religion, $45\frac{1}{2}$ millions have been returned as "Hindus", but this "convenient generic term" as Sir W. W. Hunter points out, comprises elements of very diverse ethnical origin, and separated by language, customs, and religious rites. A notable fact is the existence of above 22 millions of Mohammedans, making the Lieutenant-Governor of Bengal, so far as numbers are concerned, a greater Mussulman ruler than the Sultan of Turkey. Aboriginal beliefs are professed by about $2\frac{1}{2}$ millions of semi-savages, and Christianity brings up the rear, at a vast

interval, with about 130,000 converts. During recent years, a great Mohammedan revival has produced important religious and social effects in widening the distinction between the Mussulman and the Hindu. The Mohammedan peasantry have cast off all connection with Hindu superstition and idolatry, and, declining to continue their former offerings to Krishna and Durga, for the averting of evil due to famine, flood, or any other cause, they look to the official in charge of the District for protection, or petition the Government, or write strong letters to the vernacular press. We should observe that Bengal contained, in 1881, nearly 40,000 Europeans and non-Asiatics, including Eurasians, of whom about 34,500 were in Bengal Proper, and of these above five-sevenths resident in Calcutta and that neighbourhood.

The chief towns of Bengal are Calcutta, Howrah, Patna, Dacca, Murshidabad, Hugli (with Chinsurah), Cuttack, Puri, Gaya, Chittagong, and Darjiling. *Calcutta*, with a population (1891) of 862,000, is the capital of British India, as the winter-residence of the Viceroy and partly the seat of supreme Government; the capital of Bengal; and the outlet of commerce for the whole river-systems of the Ganges and the Brahmaputra. Since the construction of the Suez Canal and the development of Indian railways, it has come to rank second in foreign trade to Bombay, favoured by a magnificent harbour and nearness to Europe. No detailed description of the place, adorned with splendid public buildings and supplied with all the requisites of civilization belonging to a first-class capital, can here be attempted. One of the chief features of the city is the central street, Chauringhi, lined with superb houses, of which about sixty occupy a mile and a half of road from north to south, facing the open plain, *maidan*, on the river-bank; behind this, and connected with it by three main routes, Park Street, Theatre Road, and Lower Circular Road, lies the fashionable European quarter. The native town skirts this on the north and east, partly composed of mere hamlets of mud-huts. The monuments include the noble Ochterlony column, 165 feet in height, with a Saracenic capital; and Foley's fine bronze equestrian statue of Outram, representing "The Bayard of the East" with drawn sword, looking round to and waving on his men. This favourite object of native gaze, beautiful in design, spirited and lifelike in execution, stands on the

Chauringhi side of the great tree-studded grassy park, opposite the United Service Club. Government House, at the northern end of the *maidan*, built by Lord Wellesley at the cost of £150,000, has four great wings running to each point of the compass from a central pile approached by a grand flight of steps on the north. The Grand Hall is one of the finest chambers in the world. In the year 1892-93 the total value of the foreign import and export trade of Calcutta exceeded 63½ millions of tens of rupees. *Howrah* (116,000 people in 1891) lies opposite Calcutta, connected therewith by a massive pontoon, or floating bridge, opened in 1874. There are large dockyards, the Bengal terminus of the East Indian Railway, manufactories and mills, and suburban houses of Calcutta men of business. *Patna* (165,000 people in 1891), on the right or south bank of the Ganges, is the chief town of the Patna District (also of Patna Division) of Bengal. This ancient city is identical with the "Palibothra" of the Greek historian and envoy Megasthenes, about 300 B.C. It is a closely and irregularly built place, with many brick houses, but with most of them built of mud with tiled roofs; the dust in the dry season, the mud in the rainy, are beyond description. There is much trade in the Bengal produce with which we are familiar, and in European cotton manufactures, both river and railway being freely used. *Dacca*, with 82,000 people (1891), is also chief town both of a District and a Division, and lies on the north bank of the Buriganga river, formerly the main stream of the Ganges. Architecturally, the place is utterly decayed from its former splendour as the Mohammedan capital of Bengal in the seventeenth century. The muslin-making has been already mentioned. The Dacca College, with an European staff of teachers, is one of the best institutions of the kind in India. The trade in Bengal produce is great; the population, after long decline, is growing; the sanitary condition has been much improved, and there is now a good supply of pure water. *Murshidabad*, with 39,000 inhabitants, is the capital of its District of the same name, and has greatly declined in population and splendour since it was the Mohammedan capital of Bengal, a distinction which it held in the eighteenth century, down to 1772. The chief building is the splendid modern Italian "palace", completed in 1837, at a cost of £167,000, of the "Nawab Bahadur of Murshidabad", descendant of Mir

Jafar (Meer Jaffier) whom we saw in the days of Clive, and living on his hereditary pension. A beautiful ivory throne, with painted and gilded flowers, displays the skill and finish of work in that material for which the city is famous. *Hugli-with-Chinsurah*, with 31,000 inhabitants, is the union, in the order as given, of an old Portuguese with an old Dutch town, both already mentioned in this record. It lies on the right bank of the river Hugli, 25 miles above Calcutta, and is the capital of its District, with a station on the East Indian Railway. *Cuttack*, with about 43,000 inhabitants, is the chief town of Orissa, situated on a peninsula formed by the bifurcation of the Mahanadi. As the centre of the network of Orissa canals, it has commercial importance, and is noted for its filigree work in silver and gold. *Puri*, chief town of its District in Orissa, has about 23,000 people. This town of lodging-houses, with no trade or manufactures, full of huts made of wattle and clay in paltry streets, has been mentioned above in connection with the worship of Jagannath. *Gaya* (76,000 people), in South Behar, is the chief town and head-quarters of its District, which has many holy places in connection both with the old Buddhism and the modern Hindu faith. *Chittagong* (over 21,000 people), near the mouth of a river entering the Bay of Bengal eastwards of the Brahmaputra delta, is the second place of sea-trade in Bengal, with an excellent port, and a railway to Cachar and Upper Assam. The imports and exports are of nearly equal worth, and yearly together approach two millions sterling, rice, jute, gunny-bags, and tea being sent away, and salt and European cotton-goods (twist, yarn, and cloth) received. *Darjiling* is chief town and administrative head-quarters of its District, in the Rajshahi Division of Bengal. The District runs up between Nipal and Bhutan towards Independent Sikkim, and includes both ridges and deep valleys of the lower Himalayas, and the *tarai* or marshy strip at the foot of the hills. The scenery is of the grandest description, comprising mountain-spurs that rise abruptly from the plains to heights of from 6000 to 10,000 feet, clad in woods to the summit, with a jagged background of dazzling snow connecting Mounts Everest (29,002 feet) and Kanchanjanga (Kinchinjunga) (28,176), the two loftiest known peaks in the world. The growth of tea and cinchona has been already referred to. The town lies at a height of over 7000 feet above

sea-level, with a normal or resident population (in 1881) of about 7000, largely increased by visitors in the hot season. There are other towns in Bengal, some containing a larger population than most of those above named, but not otherwise noteworthy, such as *Monghyr*, a picturesque place on the Ganges; *Arrah* and *Dinapur*, famous in the Mutiny days of 1857; *Behar*, *Bhagalpur*, and *Darbhanga*.

The Province of BERAR ("Haidarabad Assigned Districts", made over to us by the Nizam of Haidarabad in 1853 and finally arranged in 1861) lies in west-central India, surrounded by the Central Provinces (north and east), the Nizam's Dominions (south), and Khandesh (west). With the area of nearly 18,000 square miles, the territory contains about 3 millions of people, mostly Hindus in religious faith. Nearly one quarter of the country is covered with valuable forests; *joar*, wheat, linseed, and cotton are the chief crops produced, the export of the last being very large. Here, as elsewhere in India, the railway has done wonders for the development of resources and the prosperity of the people. Among the chief towns are *Akola* (17,000), *Amraoti* (24,000), and *Ellichpur* (27,000), the two former being seats of government for the Commissioner and his Deputies. Amraoti and *Khamgaon* (14,000) are the chief cotton-marts, and the former has much spinning and weaving. Ellichpur is a decayed place, but has near it the military cantonment (about 1000 men) of the Province. *Chikalda*, on a plateau about 3600 feet above the sea, is the sanitarium, with beautiful scenery and a rare display of roses, clematis, orchids, ferns, and lilies in their seasons, and an equable, cool, and bracing climate.

The Government ("Presidency") of BOMBAY has an area of 125,000 square miles, of which nearly 48,000 are comprised in SIND, and a population of fully 19 millions, including nearly 3 millions in Sind. The whole of the territory lies on the western side of India, from the borders of Baluchistan to beyond the Portuguese district of Goa. The four great Divisions (*Sind*, *Northern*, *Central*, and *Southern*) comprise 23 Districts, exclusive of Bombay city and island, which form another District. We may here note that the District is the unit of administration for both fiscal and judicial purposes, and that in the Bombay Province each District has, on the average, 10 *taluks* or sub-divisions, each containing

about 100 Government-villages, or hamlets of which the revenue has not been alienated by the State. Each of these villages has a hereditary body of officials, remunerated by grants of land held free of taxation, and each place is a complete community for fiscal and police affairs, with its *patel* (*potail*) or head-man; a clerk and accountant; a kind of beadle; and the watchman. A Government-officer supervises each *taluk* or sub-division, and 3 *taluks*, as a rule, are in charge of an Assistant or Deputy-Collector. Each of the four Divisions is under a Commissioner, finally subject to the Governor and Council as the chief executive and legislative authority, composed of four members, the Governor as President, the Bombay Commander-in-chief, and two members of the Covenanted Civil Service.

SIND includes the lower valley and delta of the Indus, with mountains rising to 7000 feet on the Baluchistan frontier, and the wild and rocky tract of Kohistan, in the south-west, but most of the country consists of dry level desert and alluvial plains. The Rann of Cutch, in the south, marked on the maps as sea, is a peculiar feature, being chiefly a salt lake from June to November, and for the rest of the year a waste of 9000 square miles in area, with a salt-incrusted surface, over which herds of antelopes and wild asses roam. Above three-fourths of the people are Moham-medans, and the rest are Hindus, Sikhs, and aborigines, with a few Christians, Jains, and Parsis. The Sindis are the original Hindu population, taller and more robust than the Bengalis, with muscular frames and dark skin. Most of the land is absolutely barren, little more than 2 millions of acres being under tillage, producing the usual grains, and also oil-seeds, indigo, and hemp. Fine apples are grown, in addition to the common tropical fruits, and British rule has introduced, with good results, the cultivation of apricots, nectarines, and peaches. The great river, excellent roads, and the railways afford free communication, the Indus, as the most important source of wealth both for irrigation and traffic, being specially cared for by a Conservancy Board. A Commissioner holds sway over the three "Collectorates" of Karachi, Shikapur, and Haidarabad, and the two Districts, Thar-with-Parkar and the Upper Sind Frontier, each of which has a Deputy-Commissioner. Education has made much progress under British administration.

The *Northern Division* of Bombay Presidency includes Gujarat and the country between the Ghats and the sea (the Konkan) to about 100 miles south of Bombay city. The chief Districts are Ahmadabad, Broach, Tanna, and Surat. Ahmadabad has important manufactures of silk and cotton cloth, carried on under a system of caste or trade-unions, with trade-guilds regulating wages in those and other crafts. The District is peculiar, in Gujarat, as having nearly half the lands in possession of great holders, or of syndicates or bodies of shareholders, paying a fixed quit-rent to the Government. Broach, an alluvial plain sloping westwards to the Gulf of Cambay, is a fertile and well-tilled region of what is called "black cotton soil", having grain and cotton as its chief products. Tanna (Thana), on the coast, is rich in wheat and millets, oil-seeds, and rice, and has a large production of salt by evaporation. Surat, a wide alluvial plain on the Tapti, is highly cultivated, with rice, millet (*joar*), and other grains, cotton, pulses, and oil-seeds as the staple crops.

The *Central Division*, with six large Districts, Khandesh, Nasik, Ahmadnagar, Poona, Sholapur, and Satara, lies inland above the Ghats, Khandesh being on the high plain of the Tapti. Grain, cotton, fibres, and oil-seeds are very largely produced.

The *Southern Division* includes territory both above and below the Ghats. Of the five Districts, Dharwar is specially rich in cotton, of both the indigenous and the New Orleans varieties; Kaladgi, with much growth of cotton, has numerous weavers of cotton and silk; Kanara (North) is rich in forests, and is the only part of the Presidency abounding in wild animals, including tigers, common and black leopards, hyænas, bears, bison, *sambhar* (deer), and wild hog. Ratnagiri, rugged and rocky, with a dangerous coast about 160 miles in length, is remarkable for its prosperous class of sailors and fishermen, and as a rich recruiting-ground for Sepoys in the Presidency army. Many of the people resort to Bombay for work in the cotton-mills and at other occupations, and Sir W. W. Hunter tells us that "to Ratnagiri's clever, pushing upper classes, to its frugal, teachable middle classes, and to its sober, sturdy, and orderly lower classes, Bombay city owes many of its ablest officials and lawyers, its earliest and cleverest factory-workers, its most useful soldiers and constables, and its cheapest and most trusty supply of unskilled labour". The city at the

present time contains 126,000 persons born in this District of excellent British subjects.

The chief towns of Bombay Presidency are Bombay, Poona, Ahmadabad, Surat, Karachi, Sholapur, Haidarabad (Sind), Broach, and Belgaum. *Bombay*, with its suburbs, covers 22 square miles at the southern end of a string of islands which, by the silting up of channels, and by the construction of breakwaters and causeways, have become so united with the larger island of Salsette on the north, and thence with the mainland, that the whole now virtually form a peninsula, enclosing the finest harbour in India. This last fact, combined with the railways and the Suez Canal, has made the place into the greatest commercial port of the Eastern world, with a population which, in 1891, exceeded 820,000. As the one port of arrival and departure for the mails and for the troopships of the Indian army; as the central point of arrival and departure for Indian travellers; as the greatest cotton-mart in the world, save only New Orleans; as a large manufacturing town that has also a haven displaying, like a Glasgow in the Oriental tropics, the stately steamships of great commercial lines, Bombay is the most important city in all the foreign possessions of Great Britain. In her beautiful position on a deeply indented and hilly coast, adorned with vegetation, she rivals Naples; in the motley aspect and picturesque figures of the people, with a great variety of national types, and dress of vivid colours, she reminds the traveller of Cairo. The public buildings are noble structures, the terminus of the Great Indian Peninsular Railway, completed in 1876 at a cost exceeding £300,000, being probably the finest building of its kind in existence. The mercantile quarter of the town has an appearance more European than any other Indian city; the wealthy European and Parsi residents have their elegant villas or bungalows amid luxuriant gardens on Malabar Hill, on the westernmost of two parallel promontories to the south. The place is distinguished by the public spirit, in a philanthropic sense, of some of its citizens in recent years. Among these benefactors may be named Sir Jamsetjee Jejeebhoy, a Parsi merchant-prince who died a baronet in 1859, and Sir Albert A. David Sassoon, Bart., Companion of the Star of India, the head of a great firm of Jewish merchants. Recent statistics show that the foreign trade in imports and exports amounted to nearly 40 millions sterling.

Poona, the former capital of the Peishwas whom we have seen in the Maratha (Mahratta) history, is a military cantonment and a residential town, capital of its District, at 1850 feet above sea-level, on the Great Indian Peninsula Railway, 119 miles south-east of Bombay. The waterworks were provided mainly by the liberality of the Parsi baronet named above. The climate is healthy and pleasant, and the steadily growing population was (in 1891) 161,000. *Ahmadabad* (148,000) is the chief city of Gujarat, formerly (in the sixteenth and seventeenth centuries) one of the most splendid places in Western India. Its manufacture is in silk brocaded and interwoven with gold and silver thread, and there are some steam-factories for cotton, and a large make of pottery, shoes and other leathern goods, and paper. The old architecture is interesting for its combination of Saracenic with Hindu forms. *Surat* (109,000), which we have seen as once the chief commercial town of India and the seat of a "Presidency" in the Company's early days, was probably the most populous place in the country during the eighteenth century. Her fortunes, in commerce, fell with the rapid rise of Bombay, and two great calamities, in close succession, brought her to the verge of ruin. In April, 1837, a three-days' fire destroyed over 9000 houses in the city and suburbs; in the same year, near the close of the rainy season, the Tapti rose to an unprecedented height, flooding the whole place and covering the neighbouring land like a sea. Nearly three-fourths of the city perished through these disasters, but in 1840 came a turn of the tide. A steady growth of trade began, and in 1858 Surat became a railway-centre of Gujarat. The demand for cotton at the time of the American Civil War brought further prosperity, and the sound, well-lighted, paved, and watered roads, the works to protect the city from floods, the improvements in the drainage and markets, and the provision against risks of fire, are now worthy of this wealthy and well-ordered municipality.

Karachi (Kurrachee, 105,000 people), is a flourishing creation of British rule in the latter half of the nineteenth century, with a great commerce, fine harbour-works, and the local institutions of a well-governed British town. The place lies on a bay at the north-western extremity of the Indus delta, protected on the west by a reef ending in Manora Point, crowned by a lighthouse with a fixed light 120 feet above sea-level. The Sind, Punjab, and Delhi

Railway runs on to the landing-place for passengers and goods on the island of Kiamari, which is also connected with the town and mainland by Napier Mole, 3 miles in length. Karachi is the seat of rule for the Commissioner of Sind, and has a large military cantonment. The total import and export trade, in 1892-93, exceeded in value $4\frac{1}{2}$ millions sterling. *Sholapur*, on the railway 150 miles south-east of Poona, has 62,000 people, with a large collecting and distributing trade, and a chief industry in weaving, spinning, and dyeing silk and cotton. The *pax Britannica* and the railway have brought prosperity, as well as peace, to a town once exposed to constant raids of lawless men. *Haidarabad* (the *Sind* town, with a population of 58,000), is in a strong natural position about three miles east of the Indus, whither a road leads to a steam-ferry for Kotri on the Sind, Punjab, and Delhi Railway. The fort, covering 36 acres of ground, contains the arsenal of the Province. The place is well provided with water pumped up from the Indus by powerful machinery to a high level near the fort, and thence discharged through iron pipes, by gravitation, to all parts of the town. Haidarabad, the historical capital of Sind, is the centre of all communications, and has excellent manufactures of ornamented silks, lacquered ware, and work in silver and gold. The public buildings include all those usual in first-class European towns. *Broach*, one of the oldest seaports in Western India, long superseded, in its foreign trade, by Surat and Bombay, and once the centre of a great cotton-manufacture, lies on the right bank of the Narbada (Nerbudda), about 30 miles from its mouth. The population (over 37,000), is of the usual mixed character in point of religious belief, with over 20,000 Hindus, half as many Musalmans, and a few hundreds each of Jains and Parsis. *Belgaum* (nearly 23,000 people), chief town of its District, in the south of the Presidency, north-east from Goa, has greatly grown in size and wealth since British occupation in 1818. A large military cantonment and a school for the children of natives of rank give social importance to the place. The chief sanitarium or hill-station of Bombay Presidency is *Mahabaleshwar*, to the south of the Bhor Ghat, in Satara District. It was established in 1828 by Sir John Malcolm, Governor of Bombay, and lies on a plateau of the Western Ghats, at a height of 4500 feet. There is easy access by railway and good roads from Poona and Bombay, and residents have the advantages

of charming scenery, ample scope for exercise on foot and by carriage, good water, and fresh breezes from the sea. The chief season for visitors is from March to June, when the heat is at its worst down in the plains, but the time of greatest natural beauty at Mahabaleshwar is in October, after the heavy rains of the monsoon have ceased, and when the verdure of moss and grass, and of many kinds of ferns, and the hues of countless wild flowers, are at their best. A grand cascade (the Yenna Falls) is then in full play, and the cliffs have their rocks and foliage intermingled with the silvery threads and sun-lit spray of many a stream and lesser waterfall. The civil surgeon is superintendent of this delightful resort, which has the usual establishments, including a large reading-room and library, for the benefit of cultured people. *Matheran*, a smaller hill-sanitarium in the Thana (Tanna) District, lies about 30 miles east of Bombay, at 2460 feet above sea-level, on a wooded plateau with an area of 8 square miles. The main feature of this charming resort of Bombay citizens, discovered and made known in 1850 by Mr. Hugh Malet, of the Bombay Civil Service, lies in its many points or headlands, rocky promontories stretching out into mid-air, and affording noble views of the plain below to the coast-line, with the towers and shipping of Bombay. The sea-breeze gives freshness to the rides through the forest, and the place enjoys an absolute freedom from malaria. The little town is under the special management of the civil surgeon, for the benefit of visitors, and all the appliances of civilization are at work during the two seasons, in October and November, after the rains (244 inches yearly), and from April 1st to the middle of June.

The CENTRAL PROVINCES, with 4 Divisions, each under a Commissioner, and 18 Districts, have an area, under direct British rule, of 86,500 square miles, with a population rather more than $10\frac{3}{4}$ millions. This region, lying in the very centre of India, with extension eastwards to Orissa, is a wild and picturesque mingling of hill and forest, plain and plateau, little known to geographers until the middle of the nineteenth century. The people are mostly Hindus in faith, with about 300,000 Mohammedans, and $1\frac{1}{2}$ millions holding the primitive beliefs prevalent among the non-Aryan hill-tribes. The cultivated area is mostly under rice, wheat, and other food-grains, and there is also a large growth of cotton and oil-seeds. The largest town, and seat of government,

is *Nagpur* (117,000 people) in the west, with fine tanks and gardens constructed by the Maratha princes, and many fine Hindu temples. It is a place of great and growing trade, with manufactures of fine cotton-stuffs, and many good schools. *Kamthi* (Kamptee, 51,000 people), nine miles to the north-east of Nagpur, is the chief military station. *Jabalpur* (Jubbulpore, 84,000 people) is the chief town of its District, in the north of the Province, and is a beautiful modern place at 1460 feet above sea-level, surrounded by tree-shaded lakes, which have been formed in the many rocky gorges of the hills. The School of Industry employs, in one of the largest tent and carpet factories of India, retired Thugs and Dacoits, with their families, settled here after becoming "approvers" against gangs of murderers and banditti. A very large trade, carried on by the East Indian and Great Indian Peninsula Railways, is done in native raw produce and imported piece-goods, metals, and salt. *Sagar* (Saugor, 45,000 people), in the north-west, nearly 2000 feet above sea-level, is a well-built town on the borders of a fine lake, with many large bathing-ghats and Hindu temples. During the Mutiny of 1857, the town and fort were held for eight months by the British, against the whole surrounding rebel-teeming country, until the victorious arrival of Sir Hugh Rose (Lord Strathnairn). *Raipur* (25,000), in the centre of the Province, has an important trade in grain, lac, cotton, and other produce, and is well placed on the direct line of railway from Bombay to Calcutta. The sanitarium, with a convalescent-dépôt for European troops, is *Pachmarhi*, in the hills of the north-west, 2500 feet above the plain.

We need not linger long in little COORG, with her 1583 square miles, and declining population of 173,000. The country and people, to the south-west of Mysore, have been already described in connection with Lord William Bentinck's period of rule, and elsewhere. The mountainous region, clothed with primeval forest or grassy glades, broken by a few valleys under tillage, produces most valuable timber, and a good supply of rice, cardamoms, and coffee. The intelligent people eagerly contribute to the expense of a British education for their children, including some hundreds of girls. These noble mountaineers, "Highlanders" of India, wearing a distinctive national dress, were specially exempted from the disarming Act as a reward for their active loyalty in

1857. Their conduct has been a worthy return for our faithful observance of the assurance conveyed in 1834 by the British Political Agent, Colonel Fraser, that their civil and religious usages would be respected, and that every effort would be made to increase their security, comfort, and happiness. The Raja who surrendered himself in 1834 retired to Benares on a pension from the Government, came to England in 1852, and died there ten years later. His daughter, Princess Victoria Gauramma, became a Christian, with the Queen as one of her sponsors, married a British officer, and died two years after her father. The capital of Coorg, *Merkara* (8400 people), on a table-land 3800 feet above sea-level, contains the mausoleums of Vira Rajendra, the hero of Coorg independence in the struggle against Haidar and Tipu of Mysore, and of Linga Rajendra, his successor, with their favourite queens. The British Government makes an annual grant of £200 to the attendants who keep the tombstones covered with a white cloth, adorned with flowers daily renewed, and lighted by a lamp of undying flame.

The MADRAS Presidency, Government, or Province, with an area of nearly 140,000 square miles, and a population of $35\frac{1}{2}$ millions, is of very irregular shape, extending far up its broader eastern coast-plain; only half as far up its narrower western side, and with the greater portion of the high interior table-land, between the Eastern and Western Ghats, cut out by the now independent State of Mysore. The mountains, rivers, forests, fauna, and crops of this great region have been sufficiently indicated. The crops include, on a large scale, almost all the growths of India except barley and wheat. The people chiefly belong to the five races of the Dravidian stock, non-Aryans dominant, as we have seen, through Southern India. In religion, above 90 per cent are Hindus, and there are about 2 millions of Mohammedans, far more Christians (nearly a million in all) than in any other Province of India, and primitive beliefs among wild hillmen. The number of horned cattle is returned as $8\frac{1}{2}$ millions, and the export of hides and skins approached 2 millions sterling in value. Raw cotton, coffee, and indigo, each exceeding one million in value, were the next in order. The manufactures, chiefly village-industries, include some steam cotton-mills, a great make of salt by evaporation, and the distillation of arrack, a kind

of rum, from sugar of various production from cane, cocoa-nut, and palm. The making of salt, and of spirituous liquors, is a Government monopoly. The sea-borne trade of the whole Presidency, equally shared between Madras and a number of small ports doing a great coasting-traffic, exceeds 20 millions sterling in annual value.

For administrative purposes, there are no Divisions or Commissionerships, but 22 Districts, ranging in area from 3500 to over 17,000 square miles. The chief town and seat of government is *Madras*, the third city of India for importance and population, the latter (1891) amounting to 452,000. Low-lying, on a straight, harbourless coast, with no navigable river for shipping, Madras shows little to the viewer from the sea save the front mercantile structures of the ill-built crowded Black Town, the business-quarter, to the north, with a pier and some harbour-works, and, to the south, a sea-frontage of two miles with some good public buildings on the esplanade. To the west, and south again, the city spreads over a large area (27 square miles), much of it semi-rural, with many villages and plots of tilled ground. The iron pier is useful for landing passengers and goods; the cyclones to which the coast is liable at irregular intervals of years are the chief obstacle to the formation of a durable enclosed harbour. The institutions, which are those of a great capital, include a fine Observatory, which is the time-keeper and a chief meteorological department for the whole of India. *Trichinopoli* (90,000 people), chief town of its District, lies on the right bank of the river Kaveri (Cauvery), about 56 miles from the sea. The Trichinopoli Rock, a mass of gneiss rising abruptly to the height of 273 feet above the level of the streets at its foot, is a striking object, crowned with a temple, in the midst of the town. The well-known strong-flavoured cigars, and gold jewellery, are the chief manufactures. There are above 8000 native Roman Catholics, and several Protestant mission-stations. *Tanjore* (54,000), a famous and interesting ancient capital, has a temple and other monuments of Hindu art, including a great pagoda, of the highest order in that style of work. Artistic manufactures in silk, jewellery, and copper-ware are carried on. *Madura* (87,000) another ancient capital of renown, is the Benares of Southern India for its religious associations. The Pagoda is a magnificent

structure, 847 feet by 744, having a "Hall of One Thousand Pillars" (997, in fact) richly adorned with paintings and sculptures. There are other splendid native buildings, including a palace in the Hindu-Saracenic style. *Bellary* (59,000), in a central inland position, about 300 miles north-west of Madras, is a first-class civil and military station, with a double line of fortifications, an impregnable citadel, and a strong garrison of British and Native troops.

Calicut (66,000), a port on the west coast, is the head-quarters of the wealthy and populous District of Malabar, and steadily progresses, with an import and export trade, exceeding in value a million sterling yearly. *Negapatam* (59,000), on the coast due east of Trichinopoli, is another large and flourishing port. *Utakamand* (Ootacamund), the administrative head-quarters of the Nilgiri Hills District, has now a population exceeding 12,000, of whom nearly one-fourth were Christians, a fact due to the place being the chief sanitarium of Madras Presidency. This delightful retreat from the heated plains, now the summer centre of the Madras Government, was discovered in 1819 by two Madras civilians who were pursuing a band of tobacco-smugglers. The first house was built, two years later, by the Collector of the District, and a town slowly grew on the plateau, situated at 7200 feet above sea-level. The amphitheatre in which the buildings stand is surrounded by stately hills, and has an artificial lake nearly a mile and a half in length. In this region, six mountains rise above 8000 feet, including the Dodabetta Peak, already mentioned, the culminating point of Southern India, 8760 feet above the sea. The vegetation of the temperate zone is fostered by the climate into a tropical luxuriance of growth whereby the tender plants of Europe become hardy shrubs, and the hedgerows are composed of fuchsias and other garden-flowers of Great Britain. The villas of the European residents look down upon the lake from their nooks on the hills, and the wide range of the plateau, in its downs and great grassy tracts, affords scope to the people for riding, driving, bicycling and tricycling, cricket, polo, and other athletic exercises of their far-distant British relatives and friends. An excellent club, a pack of fox-hounds, a newspaper, a public library, the fine Botanical Gardens, the Hobart Park, a branch of the Bank of Madras, hotels, schools, churches, hospitals, and shops, meet all the reasonable wants of the permanent residents from November to February, and

of the European visitors who flock to Utakamand between March and June.

The NORTH-WESTERN PROVINCES and OUDH have a total area of 107,500 square miles, and a population now exceeding 47 millions, of which Oudh claims 24,200 square miles and above 12½ millions of inhabitants, the densest population in all India, reaching an average of 522 per square mile. The northern portion includes the Himalaya region for 180 miles between the Punjab and Nipal (Nepaul), nearly all the rest of the Province consisting of the alluvial plain of the upper Ganges and its tributaries, rich soil with products that have been already indicated. In religion, over 86 per cent of the people are Hindus, and 13 per cent Mohammedans, who are especially numerous in the Divisions of Rohilkhand, Benares, and Meerut.

The NORTH-WESTERN PROVINCES have seven Divisions, Meerut (Merath), Rohilkhand (Rohilcund), Agra, Jhansi, Allahabad, Benares, and Kumaun, the last consisting of the Himalaya region and the swampy tract (Tarai) at the foot of the mountains. These Divisions contain 37 Districts, each under an officer styled "Magistrate and Collector", usually a member of the Covenanted Civil Service, and directly representing the Executive Government in all departments—police, revenue, criminal and revenue cases of law, sanitation, municipal work, roads, and forestry. He is responsible to the Commissioner of his Division, who is again under the control of the Lieutenant-Governor of the Province. No part of India contains so many famous cities, the chief being Benares, Agra, Allahabad, Cawnpur, Bareli (Bareilly), Meerut (Merath), Farukhabad, Shahjahanpur, Mirzapur, Moradabad, Saharanpur, Aligarh, Gorakhpur, and Muttra. Each of these towns is the administrative centre of its District, while Meerut, Agra, Allahabad, Jhansi, and Benares are also the capitals of their own Divisions, and Bareilly of Rohilkhand. The populations given are according to the census of 1891.

Benares (220,000), the famous sacred city of the Hindu faith, whose long line of picturesque *ghats* (landing and burning stairs) and splendid temples is familiar to all from illustrations, stands on the left (northern) bank of the Ganges, 420 miles north-west of Calcutta. The streets are crowded with bustling traders and artisans, pilgrims, camels, horses, asses, and sacred bulls, overlooked

by temples, palaces, and mosques that line the narrow labyrinths of traffic. Above three-fourths of the people are Hindus, greatly devoted to prayer and to ablutions in the sacred stream by whose side constant groups of loungers gaze on the *fakirs* and other ash-strewn nearly nude fanatical ascetics aiming at Heaven through self-made misery on earth. The present city is modern, dating only from the reign of Akbar (1556-1605), but extensive ruins lie to the north, encumbering the site of olden Benares. The grandeur of the view from the river is due to the perpendicular cliff, 100 feet in height, crowned by lofty pinnacle-tipped or towered structures, with the long flights of the *ghats* descending to the water's edge. The wealth of the city is largely derived from the visits of pilgrims of rank, attended by large retinues. European civilization is represented by Queen's College, with nearly 1000 students; missions of various Christian bodies; the Benares Institute, devoted to science, literature, and social progress, chiefly supported by native gentlemen; and the valuable Carmichael Library. The noble architecture of *Agra*, on the right bank of the river Jumna, 300 miles above its junction with the Ganges, has been described in a former section of this work. The population (169,000), of whom about two-thirds are Hindus, with 40,000 Mohammedans, have manufactures of pipe-stems, shoes, and gold lace, and of the beautiful inlaid mosaic work so wonderfully wrought in the Taj-Mahal. *Allahabad* (175,000), on the left bank of the Jumna, at its confluence with the Ganges, is the chief seat of government for the North-West Provinces. The British quarter, well arranged with broad tree-planted roads, has many fine residences lying in large *compounds* or parks. The East Indian Railway crosses the Jumna by a splendid bridge, and the Grand Trunk Road passes through the city. A scene of carnage, arson, and rapine occurred in 1857, when the rabble rose with the mutineers of the garrison on June 6th, but were quickly subdued (June 11th-15th) after the arrival of General Neill with some Madras troops, and the turning of the fort-guns on the native town. Havelock passed through the place shortly afterwards, on his victorious march to Cawnpur. The spacious fort, changed by modern engineers from its olden form of towering masonry, occupies the point of confluence of the two rivers. The Muir Central College is a great educational institution, and, among other fine public buildings, the Mayo Memorial and Town Hall is

conspicuous. Allahabad, with no special trade or manufacture, is a place of great railway-traffic in goods, and a large mart for the purchase and sale of produce.

Cawnpur (189,000), the place of evil memory, is a modern town, of little architectural interest, on the right bank of the Ganges, 130 miles above Allahabad. The Memorial Church covers the site of General Wheeler's entrenchments in 1857; the Memorial Gardens, of 50 acres, with the fatal and famous well and its beautiful monument, line the bank of the river. The Ganges, the Ganges Canal, two railways (the East Indian, and a branch of the Oudh and Rohilkhand), and the Grand Trunk Road (Calcutta to Delhi) afford ample communication for great manufactures in leather and cotton, and a large collecting-trade in grain. *Bareilly* (121,000) lies in Rohilkhand, on the Ramganga river, 96 miles above its confluence with the Ganges. The chief buildings, including a strong fort, are modern. The place has no special importance in trade; upholstery and furniture are well and cheaply made. A Government college, and some high-class schools, exist. Mohammedans form nearly half of the population, and in 1871 serious riots occurred between fanatical followers of the rival religions. *Meerut* (120,000) nearly half-way between the Jumna and the Ganges, in the north-west of the Province, is a very ancient place, revived into its modern size and importance as a great military post under British rule, famous for the first outbreak of rebellion in 1857. A powerful British garrison holds this head-quarters of the Division in which it stands. *Farukhabad* (78,000), near the Ganges, 83 miles north-west of Cawnpur, is a handsome well-built town, founded early in the eighteenth century. Trade is reviving since its connection with the railway-system. *Shahjahanpur* (78,500), another scene of mutiny in 1857, founded in 1647, during the reign of the emperor whose name it bears, is on the Oudh and Rohilkhand Railway, with some manufacture of sugar and rum. *Mirzapur* (84,000), on the south (right) bank of the Ganges, 56 miles below Allahabad, has yielded to Cawnpur the first place in Northern India as a mart for grain and cotton. The river-front is made picturesque by Hindu temples, mosques, *ghats* or flights of stairs, and private houses richly carved and otherwise adorned. There is a large manufacture of shell-lac, and a considerable trade in stone, and in the general vegetable produce of the beautiful and fertile

region. *Moradabad* (73,000), on the river Ramganga, and the Oudh and Rohilkhand Railway, gives employment to some thousands of artisans in metal-work, notably in the inlaying of brass and tin.

Saharanpur (63,000), on the Sind, Punjab, and Delhi Railway, and on a branch of the Oudh and Rohilkhand, has a large trade in sugar, molasses, and grain, with fine Government botanical gardens, and a horse-fair and agricultural show. *Aligarh* (61,500), with the fort captured by Lord Lake in 1803, is on the railway 84 miles south-east of Delhi. The Aligarh Institute, founded by a native of the Civil Service in 1864, has for its chief object the translation of modern scientific and historical works into the vernacular tongue, with a bi-weekly journal in English and Urdu, a good library, and a reading-room for British and native newspapers. *Gorakhpur* (63,500), on the river Rapti, in the north-east of the Province, has a considerable trade in timber and grain. *Muttra* (61,000) on the right bank of the Jumna about 30 miles above Agra, is an ancient historical place, sacked by Mahmud of Ghazni in 1017, and having its Hinduism persecuted, with much destruction of temples and shrines, under the Mughal rulers Shah Jahan and Aurangzeb. There are noble Mohammedan mosques, richly decorated houses built of fine white stone and wood, and a splendid masonry tank with high walls, and steps rising fifty feet above the water, all overshadowed by trees. The place is still a great resort of Hindu devotees, with pilgrims flocking yearly to the festivals. *Hardwar*, on the right bank of the Ganges, about 40 miles north-east of Saharanpur, is a small place notable as a very ancient town of Hindu pilgrimage, venerated as the spot where holy fertilizing Ganges, issuing from a gorge in the hills, passes out upon the plains. Worshippers of Buddha, Siva, and Vishnu have alike resorted to this sacred little town, where pilgrims struggle to be the first to plunge into the water at the bathing-ghât, after the priests have announced the propitious time. In a less romantic and more practical way, Hardwar is important as one of the chief horse-fairs in Northern India, visited by Government-agents for the purchase of cavalry-remounts.

Rurki, a town of fully 16,000 people, has sprung up within the last half-century, about 20 miles east of Saharanpur, from a little mud-built village near the spot where the Ganges Canal is carried

over a lofty viaduct. The head-quarters of the canal workshops and foundry were established there, and population flowed to the spot. In 1847, the Thomason Civil Engineering College, for preparing natives, Eurasians, and Europeans to deal with public works in India, was started on a career which, in 1882, gave it about 100 regular students, and made it the most important institution of its class in India, with a staff of the highest order of ability at the source which supplies the men who execute and maintain the great public works that in India are so specially essential to material progress and prosperity, and even to the preservation of life in men and cattle. There are special classes for training soldiers chosen from British regiments in India. The chief *sanitaria* or hill-stations for the North-Western Provinces and Oudh are *Masuri* (Mussooree), *Landaaur*, and *Naini Tal*. *Mussooree* and *Landaaur*, on the Himalayan slopes in almost the extreme north-west of the province, really make one town, on the crest of a peak that reaches 7500 feet above sea-level. The population, with about 4000 permanent residents, fluctuates with the season, which culminates in September. Mussooree has a summer home for about 100 soldiers' children, and the Sind, Punjab, and Delhi Railway Company maintain a school for the families of their European working-staff. At Landaaur, a convalescent-station for European troops was established in 1827, and the summer invalids average 300. *Naini Tal* is in the District of Kumaon, in the north-east of the Province, beautifully placed on the banks of a small lake among the spurs of the Himalayas, at 6400 feet above sea-level. The little town, with a minimum population of about 8000, is the head-quarters of the Government during the hot season. The scenery of the surrounding hills, with distant views of snowy peaks far above four miles in height, is beyond all praise. The one incident of a striking nature in the history of Naini Tal is the terrible cyclone and rainstorm of September 18th, 1880, which caused a landslip destroying the lives of nearly 150 people, including 42 Europeans, with the wreck of the public Assembly Rooms and other buildings to the value of £20,000. That sum has since been expended on a drainage-system and other protective works by the municipal authorities. The convalescent depôt for European troops, established in 1859, has room for about 350 men.

ODDH, with 4 Divisions, of Lucknow, Sitapur, Faizabad, and

Rae Bareli, and 12 Districts, occupies one vast alluvial plain, with only 6 per cent of the ground unfit for tillage, and is watered by the Ganges, Gumti, Gogra, and Rapti, with their many tributary streams. The dense population is spread through over 24,000 villages and small towns, mainly engaged in agriculture, entirely feeding their own teeming millions, and having a large surplus of produce for export, now much developed by the opening of railways. The pacification and settlement of 1858-59 left about three-fifths of the land in possession of the chieftains (*talukdars*) on condition of loyal conduct, and of punctual payment of the revenue assessed and of the wages of village-officials. A new right of property, unknown both to Hindu and to Mohammedan law, was then conferred by the British Government, including the power of alienation by will, and succession by primogeniture to intestate estates. Two-fifths of the territory is in the hands of a class intermediate between the cultivators and the chiefs. There are no large manufactures, the chief industries of a wholesale character being indigo factories and a paper-mill at Lucknow. The country has derived vast benefit from British rule in freedom from oppression, the improvement of communications, the spread of education amongst a people of keen natural intelligence, and the establishment of a judicial system, securing life and property, which did not exist in the days when Oudh was a native kingdom.

The only great towns are *Lucknow* and *Faizabad*. *Lucknow* (273,000), the capital city of Oudh, lies on both banks of the river Gumti, about 40 miles north-east of Cawnpur. The place is quite modern, but already comes fourth in population amongst the cities of British India. This centre of modern Indian life, a crowded Oriental town of picturesque appearance, with its towers, cupolas, and minarets, at a distant view, but with little real architectural merit, is a leading place of native fashion, and a chief school of native music, grammar, and Musalman theology. British rule, since the terrible days of the Mutiny, has bestowed useful public works in the way of hospitals, schools, well-made roads, wider and straighter streets, a sanitary system, and convenient markets or *bazars*. The one grand architectural display of Lucknow consists of the stupendous Imambara, a single hall erected in 1784 by Asaf-ud-daula, the fourth Nawab of Oudh, with the Jama Masjid or "cathedral mosque", the Husainabad Imambara or Mausoleum,

and the Rumi Darwaza, a massive old isolated gateway. The Imambara of Asaf-ud-daula became the mausoleum of its founder, and, standing within the walls of the fort, is used as an arsenal for the British garrison. The famous Residency, left in ruins as a memorial of the heroic defence in 1857, stands high above the Gumti, and has a fine appearance amidst beds of gorgeous flowers, a noble banian-tree, and the feathery foliage of lofty bamboos screening the graveyard that contains the bodies of 2000 Europeans who died as victims or as conquerors in the days of mingled trial and triumph nearly forty years ago. The city stands on a large area of ground (13 square miles), having broader and finer streets than most Indian towns, and containing a great number of royal garden-houses, pavilions, town-houses of the Oudh nobles, temples, palaces, and mosques. Since 1858, the ground has been much cleared for military purposes in controlling the most turbulent and seditious town-population in the whole of India. The fort, with guns ever loaded and pointed at the densest quarters of the city, is surrounded by a glacis half a mile in width. Three military roads, radiating from this point, cut through the heart of the native quarter, often passing at a height of 30 feet above the flanking streets. A powerful garrison, including a large force of British infantry, cavalry, and artillery, is maintained in the fort and in the cantonments, covering nearly 12 square miles, which lie south-east of the town, cut off from it by a canal. The British soldiers are not permitted, from regard to their own safety, to enter the native quarter singly, and on one day of the year the whole garrison, horse, foot, and guns, with drums beating and colours flying, makes a grand march through the city, with an imposing display of military power. The river Gumti is crossed by four bridges, two of them built since the British annexation in 1856. The railway and the river conduct an extensive trade in country-produce and European goods, and the city itself has extensive manufactures of muslin and other fabrics of the loom, of gold and silver brocade, needle-embroidery on velvet and cotton with gold thread and coloured silks, glass-work, railway-stock, and moulding in clay. The educational institutions include the Canning College, partly maintained by the *talukdars*; the Martinière College for the children of soldiers; and schools supported by British and American Missions. *Faizabad* (79,000), chief town of its District, lies on the

left bank of the river Gogra, about 80 miles east of Lucknow. The place forms one town with the adjacent Ajodhya, on the ruin-strewn site of one of the largest and most splendid of ancient Indian cities, eulogized in the earlier part of the *Ramayana* epic. There is a military cantonment with two regiments of foot and a battery of Royal Artillery, and an active trade is done in country-produce and imported goods.

The PUNJAB, last on our list of British Indian Provinces, save Burma, is by name "the region of five rivers", the Sutlej, Beas, Ravi, Chenab, and Jehlam (Jhelum), all flowing south-west towards the Indus, into which, after junction with each other, their waters are ultimately poured. The portion of this great territory under direct British rule has an area of 110,660 square miles, with a dense population of nearly 21 millions. Of the people, by an exception in the British provinces, 10½ millions, or over one-half, are Mohammedans, with about 7½ millions of Hindus, and 1,200,000 Sikhs. Under the rule of the Lieutenant-Governor are 10 Divisions—Delhi, Hissar, Ambala (Umballa), Jalandhar (Jullundur), Amritsar (Umritsur), Lahore, Rawal Pindi, Multan (Mooltan), Derajat, and Peshawar—each under a Commissioner, sub-divided into 32 Districts. The north-east, west, and north-west are made mountainous by the Himalayas, the Sulaiman chain, and minor ranges and groups of hills; in the south-east, some low spurs of the Aravallis break the monotony of the river-plains which form by far the larger portion of the Province. Alluvial soil prevails throughout, largely fertilized, as we have seen, by irrigation, but in the west only supplying grass for herds of cattle and camels. The products of the soil have been already noticed. The eastern plains, the granary of the Punjab, contain the most fertile, wealthy, and populous districts of the whole country. Great progress has been made, under British rule, in commerce and industry, largely favoured by the opening of railways and improved irrigation. In the centre and east, the Sikhs, in spite of their inferior numbers, form the most important social and political element, as including the mass of the gentry, representing the dominant class at the time of annexation in 1849. In the north (the Himalayan region) and the east, caste is the social unit of the people; on the western plains and the Indus frontier, the land-owning classes regard the tribe as the distinctive feature for social rule and custom. Most of the

workers are connected with the tillage of land and care of animals; of these, there are rather more than 3 millions, while manufactures—textile, mineral, and otherwise—and commerce employed about half that number. The trade includes traffic, on the north and west, with Kashmir, Yarkand, Central Asia, and Kabul; a vast and growing commerce with Europe by way of Bombay; and internal commerce with Sind, Rajputana, and the Provinces to the east.

In dealing with the chief towns, we begin with *Lahore*, as the capital and seat of government both for the whole Province and its own District. This great city (177,000 people) stands in about the centre of the Punjab, a mile south of the Ravi, amid the ruins of the ancient town, which covered a larger area than the modern. At its height of splendour, in the best days of the Mughal Empire, under Akbar, Jahangir, Shah Jahan, and Aurangzeb, the place declined with the rise of Jahanabad or modern Delhi, and at last became a mere heap of ruins. The revival came under Ranjit Singh, and British rule has created a new and flourishing town. The Mosque of Aurangzeb, with plain white marble domes and minarets, the mausoleum of Ranjit Singh, and the old Mughal palace, standing in a line facing an open grassy plain, give a fine architectural effect. The modern institutions include the Punjab University, the Oriental College, some other colleges, the Medical School, the Law School, Veterinary School, High School, the Mayo Hospital, and the Museum. Five miles away lies the military cantonment of Mian Mir (Meean Meer), the head-quarters of the Division, with a garrison of all arms numbering over 3500 men. Thorough drainage and a supply of excellent water are among recent British boons to the people of Lahore. *Delhi* (192,500), on the right bank of the Jumna, has been described as regards its olden architectural glories. Since 1857 most of the Imperial palace has been removed to make room for barracks. The most remarkable monument among the ruins of former capitals that now spread round Delhi to the distance of 20 miles is the Kutab Minar, designed as a muezzin's (mosque-crier's) tower for calling the Moslem people to prayer. It is the tallest column in the world, still rising to the height of 238 feet, after losing the topmost part of its cupola by an earthquake in 1803. The elegant structure, of five storeys, inclosing a spiral staircase, tapers up from a diameter of 47 feet at the base to about 9 feet at

the summit. This noble tower or pillar stands 11 miles from the modern city. The Delhi Institute and the Delhi College, the latter supported by Mohammedan gentlemen, are among the chief buildings. The transit trade between Calcutta and Bombay and Rajputana is very large; the manufactures are fine muslin, filagree-work, glazed and carved work, and weaving of shawls.

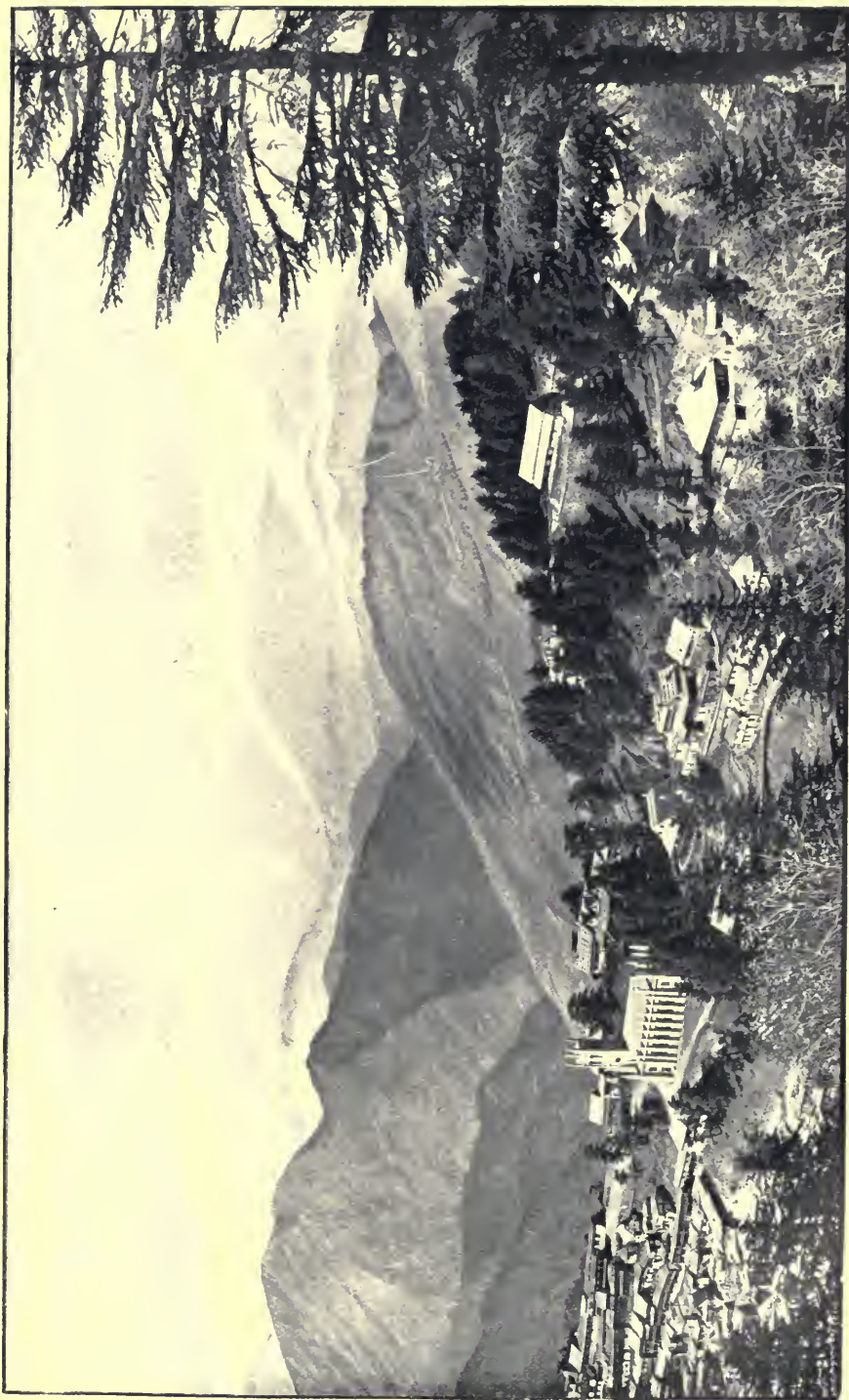
Peshawar (84,000), on the frontier, at 276 miles from Lahore and 190 miles from Cabul, is a modern town on the site of a former capital. It is the chief town of its Division and District, with fine fruit-gardens in the suburbs; a great trans-frontier import trade in various produce, with horses, donkeys, mules, and the sheep-skin coats called *poshtins*; and an export of grain, salt, oil-seeds, sugar, and oil. The cantonment, two miles west of the town, has a total population rather more than 20,000, including a powerful garrison. The residents there have a race-course, cricket-ground, and public garden, and the proverbial unhealthiness of the place has been much lessened by marsh-draining, tree-planting, pure water, and other sanitary measures. *Rawal Pindi* (74,000 people), a modern town in the north, a few miles from the foot of the Himalayas, is a great military station, well supplied with all needful buildings and institutions for the comfort and welfare of a large European population. It is the head-quarters of its Division and District for civil and military affairs, and the centre of the management of the Punjab Northern State Railway. The most modern part of the town is very spacious, clean, and well planted with trees. *Amritsar* (Umritsur, 137,000 people) lies 32 miles east of Lahore, and is a place of a great, but, since the opening of the railway through to Peshawar, a declining transit-trade. In 1881 the population reached 152,000, thus showing a remarkable decrease in 1891. The Central Asian commerce is, in fact, being transferred to direct dealing with Calcutta and Bombay. The place is notable as the religious capital of the Sikhs, with a sacred tank or pool in which stands the splendid temple of their faith. The special and an important manufacture is that of Kashmir shawls, made by a large colony of the native workers from that country. *Ambala* (Umballa, 79,000), on the railway at the east of the Punjab, where it intersects the Grand Trunk Road, is a great grain-mart, with a strong garrison in the cantonment four miles to the south-east. *Multan* (Mooltan, 74,500 people), in the south-west of the Punjab, four miles from the Chenab,

is a town of great historical interest as being on the site of the capital of the *Malli*, conquered by Alexander the Great. It has appeared in the modern history of India above given. The town is a great trade-centre, collecting produce from the Punjab for transmission to Karachi, and carrying on a large traffic with Afghanistan by way of Kandahar. The manufactures are in silk and cotton weaving, carpets, glazed pottery and enamel work, and country shoes. *Jalandhar* (Jullundur, 66,000), in the east of the Punjab, on the plain between the Beas and the Sutlej, occupies the site of a very ancient city, mentioned in the *Maha Bharata*. It stands on the Sind, Punjab, and Delhi Railway, between Ambala and Amritsar, and has a considerable trade in country produce and English piece-goods. The American Presbyterian Mission maintains excellent schools, with over 700 pupils of all castes and creeds. A cantonment, with a garrison of two regiments and one battery, lies four miles from the town, near the line of railway. *Sialkot* (55,000), 72 miles north of Lahore, is a well-built town, of steady growth and rising commerce since its connection with the Punjab Northern State Railway. More than half the inhabitants are Mohammedans, with a handsome ancient shrine; the Sikhs have a great annual fair at the shrine of their first Guru (high-priest), Baba Nanak, the founder of the sect. The cantonment near the town has a fine public garden, racquet-courts, tennis-courts, library and reading-room, and is spaciouly laid out, with tree-lined roads, on a ridge having good natural drainage.

The chief sanitarium (hill-stations) of the Punjab are *Simla*, *Kasauli*, and *Murree*. The Simla District (in Ambala Division), though it has only an area, in its detached plots of territory encircled by the lands of native chiefs, of 81 square miles, is of great importance as containing the administrative head-quarters, for a large part of the year, of the supreme (Viceregal) Government of India. Lying on the southern spurs of the great central chain of the Western Himalayas, between the basins of the Indus and the Ganges, as represented by the Sutlej and the Jumna, amid hills clothed with forests of the grand *deodar* (Himalayan Cedar) and with rhododendrons of the brightest bloom, the region presents scenery of rare beauty, variety, and grandeur, comprising the Ambala plains to the south, the massive mountain named Chor (12,000 feet) near at hand, huge ravines leading down into deep

VIEW OF SIMLA, THE SUMMER HEAD-QUARTERS OF THE INDIAN GOVERNMENT.

This town, which is important as a sanatorium and summer-capital of British India, is situated about 7000 feet above sea-level, on a spur of the Western Himálayas. From about the year 1820 the advantages of the district, as a retreat from the intolerable heat of the plains, were recognized by British officials; and in more recent years it became the established head-quarters of the government during the hot weather. The scenery in the immediate neighbourhood of the town presents a series of magnificent views. Below the spectator are huge ravines which lead down into the valleys; southward are the vast plains, with ranges of hills in the foreground; northward is a vast chain of snow-covered mountain peaks, standing out boldly against the bright background of the sky.



VIEW OF SIMLA, THE SUMMER-HEADQUARTERS OF THE INDIAN GOVERNMENT.

valleys, and, to the north, range after range of tangled mountain-chains, ending in a curve of snow-clad peaks, from four to five miles in height, whose highest pure-white tracts are seen glowing with the rosy hues of sunset long after the darkness of sub-tropical night has settled down upon the dwellers at Simla. The climate of this district has been found to be excellent for Europeans, with a mean annual temperature of 55 degrees, and an annual rainfall of about 70 inches. Many small sanatoria and cantonments have therefore been established, and the numerous schools include the Lawrence Military Asylum for soldiers' children, Bishop Cotton's School, a Roman Catholic Female Orphanage, the American Presbyterian Mission School, the Punjab Girls' and the Mayo Industrial Girls' institutions. The town of Simla, at a height of 7100 feet, has a minimum resident population of fully 13,000, a number since permanently increased, with a large influx yearly between July and October. The first dwelling for Europeans in this locality was a thatched wooden cottage, erected in 1819 by Lieutenant Ross, a Political Agent for the Hill States. Three years later his successor, Lieutenant Kennedy, built a substantial house, and in 1826 the place had become a little hill-station for officials from the Punjab plains and other quarters. In 1827, the Governor-General, Lord Amherst, after a progress through the North-West, spent the summer at Simla, and the little town then became a regular place of resort, during the hot season, for the highest officials, and the summer-capital of the Indian Government since 1864. The bungalows are spread along a crescent-shaped ridge, concave towards the south, stretching for about six miles from east to west, and on adjacent hills. The buildings include a fine new Viceregal residence and business structures for the Supreme Government and the District-officials, with shops, banks, churches, a club, hospital, dispensary, town-hall, the chief schools above named, and two breweries in the valley. *Kasauli*, a cantonment and convalescent depôt formed in 1844-45, lies 32 miles south-west of Simla, on the crest of a hill 6300 feet above sea-level, with a minimum population rather more than 3000, much increased during the summer months. *Murree*, on a hill-ridge 7500 feet above the sea, is in Rawal Pindi District, almost at the extreme north of the Punjab. In 1853, barracks were erected for convalescent troops, and the station soon became the chief northern sanitarium of the Province,

drawing large numbers of visitors from all the north-western region. The scenery resembles that of Simla, but the place also commands a view of deep valleys studded with villages and cultivated fields. The town is provided with all needful buildings, ecclesiastical, commercial, and official, with Assembly Rooms, Club, Dispensary, and the Lawrence Memorial Asylum for the sons and daughters of European soldiers. A flourishing brewery supplies British residents with the sound beer nowhere more relished than in sub-tropical India.

The chief points of British Administration in India, as settled by the Act of 1858 and subsequent statutes, have been given in the history for that period, and we have seen how the Provinces, under Lieutenant-Governors or Chief Commissioners, have Divisions ruled by Commissioners, again split up into Districts each under the control of its special officer. Madras and Bombay Presidencies are but little interfered with by the "Governor-General-in-Council", as the Viceroy is officially styled in Indian affairs, and are further distinguished by having each a special army and Commander-in-Chief, an Executive and a Legislative Council, and a Governor appointed direct from England. Bengal, administered by a Lieutenant-Governor, has had a Legislative Council since 1861, but her immediate ruler is controlled by no Executive Council. The North-Western Provinces have had a Legislative Council since 1887; the Punjab is not yet thus provided. The Central Provinces, Assam, Ajmere, Berar, and Coorg, are under the immediate rule of the Viceroy. The "Regulation" and "non-Regulation" systems of rule, already noticed, have reference to the old Regulations, or laws and judicial rules of practice which were in force prior to the establishment of the system of administration in accordance with Acts of Parliament. The method of rule has been adapted to the requirements of the territory ruled; a wider discretion being allowed to officials in financial, judicial, and other affairs in non-Regulation Districts, where the condition of the people, and their less amenable or civilized character, render the enforcement of strict rules of procedure less desirable. As a case in point, Bombay Presidency, with its 24 Districts, has 17 administered on Regulation principles, and 7, in Sind and Gujarat, ruled as non-Regulation Districts by officers who may be either military, covenanted, or uncovenanted

servants of the Crown. In such Districts, also, judicial and executive functions are, in a great degree, placed in the same hands, and there are no "High Courts", "Judges", or other special apparatus for the administration of civil and criminal justice. The Central Provinces and Assam are wholly non-Regulation, and Districts administered on the same system are found also in Bengal and the North-Western Provinces.

Throughout British India, in Regulation and non-Regulation territory, the unit of administration is the District officer, called "Collector-Magistrate" in the former, and "Deputy-Commissioner" in the latter. He is the chief executive officer, the responsible head of affairs. It is he who, to the vast majority of the people, knowing nothing of, and so caring nothing for, the mighty "Viceroy", or "Governor", or "Lieutenant-Governor", represents alike the majesty, justice, good faith, and beneficence of British sway. It is he who, on behalf of the teeming peasantry of India, keeps the machine of government at work, and its efficiency depends, in a very large degree, upon his intellectual and moral character. Great energy is needed for the successful discharge of his multifarious and responsible duties in collecting revenue, deciding disputes and hearing plaints, and superintending the management of police and jails, roads and bridges, sanitation, education, and other matters. His personal energy, tact, sound judgment, kindness, and courtesy, or the lack, in any degree, of such qualities, are of great importance as concerning both his direct relations with native subjects and the work of his European and Native staff filling the posts of deputy-collectors, assistant-magistrates, and offices subordinate to these. It must be remembered that the Districts, of which British India, including Burma, contains 250, have an average area of 3860 square miles, with an average population of about 880,000. In other words, the District-officer or Collector-Magistrate has charge of a region like a very large and populous English county or French department, and needs, for complete success in his official career, the knowledge and qualities of an accountant, a lawyer, a surveyor, a ready writer of State-papers, and a social reformer in close touch with the masses of the people, and no small acquaintance with the principles and practice of the economist, the engineer, and the scientific, skilled agriculturist. In every Province, the whole administration

is directed by the Secretariat, or central bureau, which issues orders to and receives reports from the officers of Divisions and Districts. The Secretariat of the Supreme Government at Calcutta and Simla has the following seven branches—Foreign Affairs, Home Affairs, Revenue and Agriculture, Finance, Military Affairs, Public Works, Legislation. The Provincial Secretariats have the same kind of scheme, but the Secretaries vary in number from one to four.

We cannot rightly apprehend the nature of British government in India, without reference to its essential character as a paternal, non-constitutional system, a "benevolent despotism" that undertakes, on behalf of the ruled, many duties which, in constitutional countries of advanced civilization, are left to local bodies and to the enterprise of private persons or of Companies. We turn to the administration of Lord Mayo, and find his express recognition of the fact that "for generations to come, the progress of India in wealth and civilization must be directly dependent on her progress in agriculture. Agricultural products must long continue the most important of her exports, and the future development of Indian commerce will mainly depend upon the improvement in the quantity and quality of existing agricultural staples, or on the introduction of new products which shall serve as materials for manufacture and for use in the industrial arts". It was in connection with this subject that Lord Mayo founded a "department of knowledge", and concentrated into one combined office of general registration every branch of inquiry into India and its people, occupations, and products—the facts concerning revenue-survey, topography of inland districts and coasts, mineral wealth, agricultural productions, commercial capabilities, meteorology, details of rural life, and many other matters. The improved staple of cotton, the growth of tea, cinchona, and coffee, have all been largely due to the efforts of the Indian Government. The State, in India, is not only the chief landlord of the soil from which a large part of the revenue is derived, but the guardian of forests, a great mineral proprietor, a creator and maintainer of irrigation-channels, roads, railways, public buildings, hospitals, and schools. Besides being railway-owners on a very large scale, the British Indian authorities are manufacturers of opium and salt. As regards the drug which has so long been anything but

a sedative to those who discuss it in connection with Indian finance and the effects of opium on those who, in India and China, indulge in its use, we note that the poppy is now allowed to be cultivated only in Bengal, the North-West Provinces, and Oudh, and in parts of the Punjab. The produce, all of which is sold to the Government at a fixed price, is sent to the Government factories at Patna and Ghazipur, on the Ganges, to be prepared for the market, and the chests of opium thus manufactured are sold in Calcutta, at monthly auctions, for exportation to China. Salt, which pays so large a portion of Indian revenue, is made by the Government at great brine-works on the Rann of Cutch, on the coast of Gujarat, and in many small sea-salt factories, leased to private persons, in the Konkan, on the coast of Bombay Presidency below the Ghats. On the eastern coast, from Cape Comorin to Orissa, the salt procured by evaporation conducted by private persons is also made under Government supervision. The product is brought to the State depôt, where it is paid for at a certain rate. The price to the consumer in Madras Presidency, in January, 1888, was about 3s. (at the reduced value of 1s. 3d. per rupee) per *maund* of 82½ lbs. The salt-duty, now equalized throughout continental India, is about 4s. per cwt. at the reduced value of the rupee.

The extent of municipal government in India is a fact little known to British readers. Happily devised, in recent years, to relieve District officers of a portion of their arduous labours, these bodies, greatly developed, as we have seen, by the Local Self-Government Acts of 1882-84, under the Viceroyalty of Lord Ripon, perform the duties of like local governments in this country, raising money by rates, and expending it mainly on the police, the roads, the markets, and sanitary measures. Not only are all large towns now provided with municipal institutions, but by a recent return there were 761 municipal towns, with a population exceeding 15 millions, in the India which, including Native States, then contained only 222 towns with a population exceeding 20,000 people. The development of the elective principle has been such that recently, out of 10,585 members of 758 municipalities (excluding the three Presidency towns) there were 5848 elected, against 4737 nominated or *ex-officio* members. In the 107 municipalities of the North-West Provinces, there were 1218 elected

members out of 1535. In the 145 municipal towns of Bengal there were 1154 to 944. In Calcutta, Madras, and Bombay 138 municipal commissioners out of 180 were elected by the ratepayers, and, of the total members of these municipal bodies in India, over 8000 are known to be natives. The rural districts have, in many cases, local boards in charge of schools, hospitals, and roads, with a large proportion of elected members. Apart from the village watchmen, the regular police of all kinds in British India at present number 150,600 officers and men; the 746 prisons admitted yearly during recent years nearly half a million; the two places of transportation for the worse criminals of all British India are the Andaman and Nicobar Islands, with a daily average of nearly 12,000 convicts. The actual values of money in India are the *Pie* = $\frac{1}{3}$ Farthing; the *Pice* (3 *Pie*) = 1 Farthing; the *Anna* (4 *Pice* or 12 *Pie*) = about 1*d.*; the *Rupee* (16 Annas) = 1*s.*; and the *Gold Mohar* (16 Rupees) = about 16*s.* In sums of money, 100,000 rupees make a "lac"; 10 million rupees, or 100 lacs, are called a "crore". In weights and measures, the *Maund* of Bengal (of 40 *seers*) = $82\frac{1}{3}$ lbs. avoirdupois; of Bombay, 28 lbs.; of Madras, 25 lbs. The *Candy* (of 20 *maunds*) = $24\frac{1}{3}$ bushels. The *Tola* = 180 grains; the *Guz* of Bengal = 36 inches. An Indian Act ("Governor-General in Council") of 1871 makes the *seer* the primary standard of weight, as equal to the French *Kilogramme* ($2\frac{1}{5}$ lbs. avoirdupois); for measures of capacity, the unit was to be a measure containing a *seer* of water at its maximum density, weighed in a vacuum. For all such measures of capacity and for weights decimal subdivisions were to be employed.

Throughout its history, India had, in Hindu and Mohammedan times, some system of popular education, not arranged or maintained by the State. Every large village has had its schools for children of decent people. British rule has brought with it a regular system of public instruction, organized by the State, well inspected, and assisted by grants. Some of the earlier Governor-Generals strove to supply culture for the sons of native gentlemen, but the Christian missionaries were the first to study the native tongues with a view to vernacular education for the mass of the people. The establishment of the present system in 1854 has been mentioned, in connection with the famous Despatch of Sir Charles Wood (afterwards Viscount Halifax), then President of

the Board of Control, a State-paper which set forth "a scheme of education for all India far more wide and comprehensive than the supreme or any local Government could have ventured to suggest". It was part of Lord Dalhousie's great work in India to initiate the new system, and every Viceroy since his day has pushed forward in the same direction. In 1857, while we were fighting for our hold on India, the Acts were passed which established the three Universities of Calcutta, Madras, and Bombay, on the model of the University of London, as examining bodies empowered to confer degrees in arts, law, medicine, and civil engineering. The Punjab has now the University of Lahore, which is developed on more Oriental lines than the first three, and provides for the teaching of students, and a fifth University, for the North-Western Provinces, was founded in 1887 at Allahabad. These Universities control the higher education throughout India, having a matriculation examination open to all comers, but requiring candidates for degrees to become members of an affiliated college. During ten years, according to a recent return, above 113,000 candidates presented themselves for the entrance (matriculation) examination at Calcutta, Madras, and Bombay, and of this number over 38,000 were successful. At Lahore, in three years 1021 passed the examination out of 2788 candidates; at Allahabad, in the same period, 1761 out of 3623 attained their object. Comparatively few students proceed to the higher degrees. In the ten years above mentioned, 2531 graduated B.A., and 429 M.A., at Calcutta; at Madras, the respective numbers were 2729 and 44; at Bombay, 1583 and 40; during the last six years of the period, there were 137 students admitted B.A. and 7 M.A. at Lahore; and for three recent years, 179 B.A. and 18 M.A. at Allahabad. Calcutta University turns out the great majority of graduates in law, a fact closely connected with the keen intellect and litigious character of Bengalis; at Bombay, the prevailing studies of graduates are medicine and engineering.

There are two chief classes of colleges or institutions for higher education—those taking the arts course for the University examinations, and establishments devoted to special subjects, medicine, law, or engineering. Some are entirely maintained by the Government, while others receive grants in aid of funds contributed by European or native founders and supporters. In 1891, there

were 139 such institutions, attended by nearly 16,000 male and 80 female students. Of boys' schools, the higher class are those which give instruction through the English language, and prepare candidates both for matriculation at the Universities and for the higher grades of the Government-service. Every District has at its capital town, or administrative head-quarters, one school of this class; in 1883 the number of high schools, including the *zilas* or District schools, was 530, of which 492, with 68,434 pupils, were for males, and 38, with 1165 learners, were educating girls. The middle schools, in the larger villages or smaller towns, some teaching English, others the native tongues, are of the same class as the middle schools of Great Britain. Recently, the whole number of establishments for secondary instruction, including the above higher and these middle schools, had risen to 5005, of which 4545, with nearly 437,000 pupils, were for males, and 460 schools educated nearly 36,000 girls. Little progress has been made in female education, owing to the strong prejudice on this subject still existing even amongst the more enlightened, English-speaking natives of the superior class; in Tinneveli and in some other quarters where missionaries have been able to overcome the native feeling, greater success in this direction has been attained. In 1891, the whole of British India contained about 6500 girls' schools, attended by 316,000 pupils, a number nearly double that of 1883. Normal, technical, and industrial schools numbered recently 578, with over 20,000 students, including many training as schoolmasters and as female teachers. Calcutta, Madras, and Bombay have art-schools which do some good work in industrial training.

We come, lastly, to the great test of educational work, the progress made with primary schools. In 1882, Lord Ripon appointed an Educational Commission, with the view of carrying out to the fullest extent, and on the broadest basis, the scheme of popular education which had been indicated in the Despatch of 1854. This body of experts, headed by Dr. (now Sir W. W.) Hunter, issued its report in the following year, after the President, accompanied by the provincial members, had made a tour through each Province, and personally inspected every District, with special regard to the training of teachers, the system of inspection, payment by results, and the extension of female education. Since

that time, and as the result of the facts learned by that investigation, much has been done in furthering public instruction by the foundation of new Government-schools, the encouragement of private enterprise in teaching, and the inspection of the native village-schools. It may be fairly asserted that a system of national education has been at last set afoot, with a network of institutions spread over India, starting from the indigenous "hedge-schools" of the Hindus and the old Mosque-schools of the Mohammedans, all now under Government inspection, and advancing upwards to the vernacular and Anglo-vernacular schools, the High Schools, the affiliated colleges, and the Universities. The State Department of Public Instruction now has its branches in every Province, each under a Director, and supplied with a staff of inspecting officials. Of late, the number of pupils at the State-inspected or aided schools of British India, of all classes, reached nearly 3,700,000 in 138,350 schools, or one pupil in about 60 of the whole population. The male pupils were 3,382,000, or one boy in every 33 of the males; the girls under instruction numbered 316,000, or one girl at school for every 343 females. In Bengal, the great progress made, from only 2450 primary schools, with about 65,000 pupils, in 1872, to nearly 50,000 schools, with more than 1,115,000 scholars, in recent times, is chiefly due to the reforms instituted at that date by Lieutenant-Governor Sir George Campbell. In the North-Western Provinces, the system of primary education is due to the ability and energy of that admirable ruler and administrator, Mr. James Thomason, Lieutenant-Governor from 1843 to 1853, and of Sir William Muir, who was in supreme power there from 1868 to 1874.

In connection with the subject of education, we may note a steady growth in the publication of newspapers and books in the native tongues. The year 1818 saw the issue of the first vernacular journal, published at Serampur by the Baptist missionaries. The last half-century has produced the vernacular newspapers which are now so influentially engaged on political questions. The statistics differ largely, indeed, from those with which we are familiar in Great Britain, as the official returns, for the whole of India, give a total sale little exceeding a quarter of a million copies to 463 newspapers in vernacular languages. The number of readers, however, must be vastly larger than that of the actual

purchasers. In Bengal, some of the many newspapers published in English are owned and written by natives. The North-Western Provinces and the Punjab have over 100 newspapers printed in Hindustani or Urdu, the language used by Mohammedans throughout India. In Bombay, the languages thus employed are Gujarati and Marathi. The number of daily vernacular newspapers is 10, with about 200 weekly, 60 monthly, and the rest fortnightly or quarterly issues. Recent book-statistics show that 668 books, pamphlets, and periodicals were published in English or other European languages, 5566 in vernacular tongues, 647 in the "classical languages" of India, and 1004 in more than one language. Of the whole, about 5500 were original works, the rest being translations or re-issues of previous publications. Of the subjects, poetry, drama, and fiction claimed over 1800 works, of which about two-thirds were poetical; history and biography stand for 232; language, 1165; law and medicine, nearly 350; philosophy, 460, including mental and moral science, and many works that we should call religious or theological; religious works, above 1500; arts, 100; mathematics, mechanics, and natural science, above 400; politics, 24; voyages and travels, 9; and miscellaneous subjects, 1708. For the above figures, as for so much else concerning India, we are indebted to the 3rd edition of Sir W. W. Hunter's *The Indian Empire*, so often referred to in these pages, a work indispensable to all who desire full, accurate, and recent information on our greatest Eastern possession.

Before referring briefly to the Native States, we may note some islands and outlying territories. *British Baluchistan* has been already mentioned in connection with the railway-extension to Sibi, Quetta, and Chaman, and its great strategical value. In 1877, the chief Baluch ruler, the Khan of Khelat, after attendance at the Grand Darbar at Delhi, to hear the Queen proclaimed as Empress of India, admitted a "Governor-General's Agent" to reside at his court, and he showed the most loyal spirit towards his new and powerful friends, during the last Afghan war, in aiding British troops with the resources of his territory and sending his son and heir-apparent to accompany our forces on their passage through his dominions. Since 1882, on payment of an annual quit-rent of £2500, the district of Quetta, with an unknown area and small population, has been in British hands for administration.

The town of Quetta has a military cantonment occupied by a strong brigade of troops, and the place, with municipal rule, has much increased in size and importance. What is now styled "British Baluchistan" includes Pishin, Sibi, and other districts formerly in South Afghanistan, assigned to our possession in 1879 by the Treaty of Gandamak. The little state called *Sikkim*, in the eastern Himalayas, bounded on the north by Tibet, and on the south by the British District of Darjiling, a country of dense jungle, has been under British control since 1890, by a treaty concluded with the Maharaja, whose subjects had, in former days, been much addicted to kidnapping traders and other travellers. A little trade is done in country-produce—rice, millet, Indian corn, oranges, and tea—and in imported cotton piece-goods and tobacco.

The *Andamans* or *Andaman Islands*, in the south-east of the Bay of Bengal, consist of the Great and Little Andaman groups, extending north and south above 200 miles, with a total area of about 2500 square miles. The capital, Port Blair, on the south-east shore of South Andaman, the southern island of the Great Andamans, with one of the safest harbours in the world, derives its name from Lieutenant Archibald Blair, who surveyed the groups during a complete circuit which he made in 1789–90, and constructed general charts and plans. A central range of mountains, in this group, reaches a height of 2400 feet, and the islands display beautiful scenery in the varied outline of inlets and bays, and in the forest-trees, palms, bamboos, cotton-trees, mangroves, and great euphorbias. The jungle, with a dense undergrowth that neither man nor beast can penetrate, is full of deadly malaria. The *flora* is notable for the rarity of cocoa-nut palms; the *fauna* for the absence of all mammals save hogs, ichneumons, and rats, and for the scarcity of birds. Fish, various and excellent, abound on the coast, including soles, prawns, shrimps, and oysters; the bather has to beware of sharks; the epicure may rejoice in turtles and edible birds' nests. Coral-reefs hedge in the groups on all sides. The first attempt at settlement, in 1789, failed in a seven-years' struggle with jungle-fever, the cannibal natives and their arrows, and lack of regular supplies from the mainland. For fifty years from that date, the Andamans had the worst of names for the savage character of people who slew the savant whom the Indian Government sent to study the natural history of their abode, murdered ship-

wrecked crews, and, in two cases, cut off stragglers from the crew and passengers of troop-ships driven ashore. The Indian authorities determined to put an end to what had become a scandal and discredit, and to occupy the Andamans in force. In 1858, when the Mutiny had left large numbers of life-convicts on our hands, the whole group was annexed as a colony for prisoners, and placed (in 1872) under the control of an officer now styled "Chief Commissioner and Superintendent, Andaman and Nicobar Islands", reporting to the supreme Government of India. For five years much trouble was caused by the ferocious enmity of the natives, who murdered every straggler, stole and destroyed property by fire, and, in general, displayed a spirit of what expressive American slang denominates as "cussedness" of an extreme type. Even these people were at last subdued by a combination of kindness which built for them sheds for protection from tropical rains, and bestowed food and medicine in their hour of need; and of just severity that inflicted prompt and memorable chastisement on wanton and malignant ill-doers. The tragical end of Lord Mayo, in no wise reflecting on the Andaman people, has been already described. The present convict-population, numbering about 11,500, of whom more than 8800 are "lifers", come from the jails of the three Provinces Bengal, Madras, and Bombay, and from Burma. There are no recent figures for the European residents, numbering perhaps 2500, including officials of every class, and somewhere about 750 police. The ethnology of the native people is very obscure. Their skin is very black; the tallest specimens seldom exceed five feet; few of them live to be forty; the women rarely bear more than two children; the day of their extinction cannot be far distant. At the British settlements, sugar-cane, arrow-root, rice, cocoa-nuts, maize, and vegetables are grown in sufficiency for local needs, nearly 10,000 acres being under pasture and cultivation. A recent census shows that there are about 4225 horned cattle, and prosperity is looked for in the breeding of sheep and cattle, and in the energetic spread of the cocoa-nut palm. A steady improvement, through swamp-drainage, jungle-clearing, and other measures, is taking place in the average annual death-rate of a region where the rainfall reaches about 120 inches, and the annual mean temperature is 82 degrees.

The *Nicobar Islands*, to the south of the Andamans, have twelve inhabited out of a score. The northern group is low-lying,

with cocoa-nut palms; the southern has forest-clad hills 2000 feet in height. The area exceeds 400 square miles; the people are estimated at 6000. The group was in Danish possession from 1846 to 1858, when it was abandoned. In 1869, after a case of piracy and murder perpetrated by the natives on a British vessel and crew, the Indian Government annexed the islands and placed them in charge of the Andamans Commissioner. The chief settlement is at Nancowry, on Camorta Island, 16 miles in length, with a splendid harbour. The establishment consists of about 235 convicts, 27 police, and 50 native troops. There are fine timber and tropical fruits, the edible nests of the Nicobar swallow, and abundant fish and turtles, with poultry and pigs as domestic creatures. The people are of doubtful origin, copper-hued, with visages of mixed Malay and Chinese features. They live in small collections of round, windowless, thatched huts, raised 10 feet from the ground on wooden pillars, with a trap-door below, reached by a ladder drawn up at night. In character they are a cowardly, treacherous, lazy, drunken set of murderous scoundrels, very superstitious, with a reverential regard for people who can read or write, and a republican equality in social matters. The men are husbands of one wife at a time, whom they divorce at a moment's notice for the slightest cause. The chief products of the Nicobars are cocoa-nuts, edible birds' nests, *trepang* (the sea-slug or *bêche de mer*, a marine animal of the thorny-skinned invertebrate class, including star-fishes; it boils down into a rich gelatinous soup), and tortoise-shell. The northern islands annually export over $4\frac{1}{2}$ millions of cocoa-nuts, and the extreme cheapness of the article brings yearly larger numbers of British and Malay vessels, whose captains procure their cargoes by barter, obtaining the nuts in exchange for coloured cloth, handkerchiefs, cutlasses, spoons, tobacco, red woollen caps, old clothes, and black hats. The climate is very unhealthy from jungle and swamp, the rainfall about equalling that of the Andamans.

The *Laccadives* or *Laccadive Islands* are a group of fourteen, discovered by Vasco da Gama in 1499, lying about 200 miles west of the Malabar coast of the Madras Presidency or Province. The whole have an area of about 750 square miles, with a population of nearly 14,500, mostly Mohammedans of Hindu race. The northern islands, with about one-third of the people, are alone in

British possession, but the southern portion, belonging to the native Raja of Cannanore, have been administered, since 1877, by the Collector of Malabar, the northern being attached to the Collectorate of South Kanara. The islands are of coral formation, flat in surface, fringed by coral reefs, generally enclosing a lagoon of still water on the western side. Above the limestone or coral crust foundation lies a soil of from two to six feet in depth, usually composed of light coral sand. Only two of the islands produce any vegetation of value, the cocoa-nut palm being the chief resource of the people. The fauna are few in number, except rats and tortoises, the former being very hurtful to the young cocoa-nut trees. The Government-revenue is derived from the profits on the sale of coir, or cocoa-nut fibre, which has of late years been so extensively used for matting, brushes, ships' fenders, cables, and ropes. The material is purchased from the people of the northern islands at a fixed price, payment being made partly in coin and partly in rice. The men are bold mariners and excellent boat-builders; the women are engaged in the chief industry, that of preparing the coir by steeping and then beating with sticks the husk of the cocoa-nut until the fibres are easily separated. Other exports are cocoa-nuts, copra (the kernel of the nuts broken up preparatory to oil-extraction), tortoise-shell, the cowrie-shells used for ornament and as coins, and jaggery, a sugar made from the boiled sap of the date-palm. Terrible loss of life has been caused, notably in 1847 and 1867, by cyclones bringing waves submerging for a time some of the islands.

The Native States or Sovereignities of India, variously styled "Subsidiary", "Mediatized", "Feudatory", "Independent", afford one of the most remarkable proofs of British genius for imperial rule. Few British readers are even now aware of the number, nature, extent, and variety of the states thus connected with our Eastern Empire. No detailed description of these states is here given, because they form no integral part of the British dominions, nor do they contribute, save by commerce, to British wealth or power, except in so far as military contingents have been, as already shown, placed at the disposal of British Indian rulers for service against any foreign aggression. In these states the Queen's writ, in legal phrase, does not run. A subject of these states cannot claim British rights in British territory, until he has become "naturalized".

They have their own laws, their own courts and procedure. Their rulers, having revenues and armies of their own, rights of hereditary succession and of adoption of successors, and, in the more important states, exercising the power of life and death over their subjects, are "independent" sovereigns in the technical sense, and are actually independent within limits fairly wide. Their territories are, to the rest of India, "foreign" states, the correspondence and general business with which is carried on through the Foreign Office of the supreme Indian Government, and by special departments of the Bombay, Madras, and other Provincial administrations. The true position of the Native States and their rulers is indicated by the fact that they lie ever at the mercy of overwhelming power close to their doors. They are dependent, for their continued independence, on the combined good-will and good faith of the British Government, or, in other words, on their own good behaviour, according to British ideas of humanity and propriety of conduct. They cannot make war, they can form no treaties, with other states in or out of India. The sovereigns must rule for the good of their people, looking for advice and assistance to the Resident or Agent appointed for each state by the representative, the Viceroy, of their powerful friend, the Empress of India. The authority of native rulers is limited by usage, or by treaties or engagements which acknowledge their subordination to the British Government, but they stand secure and unmenaced, subject only to interference for misrule; to rebuke and, in extreme cases, to removal, for oppression or crime; protected against all aggression, sure of peace save through their own default. This relationship between the British Indian Government and the Native States—this political partnership for the defence of India from without, and for the promotion of peace, security, social progress, and contentment within, is unique in history, bearing little resemblance to the position of subject-states in the Roman Empire. In no case would the British Government now think of annexation. An incurably bad ruler would be deposed in favour of a fit successor, either of his own line, or of his adoption, or, failing both, of selection by the Governor-General in Council.

As regards the area and population of these Native States, we find that the 688 such separate territories make up 595,000 square miles, with a population of 66 millions, as against 965,000 square

miles and 221 millions of people under direct British rule. Of these states, 170 are directly supervised by the Supreme Government; 361 by the Government of Bombay; 5 by the Government of Madras; 34 by the Lieutenant-Governor of the Punjab; 30 by the Lieutenant-Governor of Bengal, and the rest by the Lieutenant-Governor of the North-Western Provinces, and by the Chief Commissioners of the Central Provinces, Assam, and Burma. It is satisfactory to know that educated native opinion in India, as manifested through the native Press, has ranged itself decisively on the side of British ideas and methods in government, and the administrations of Mysore, Baroda, and Kolhapur (in Bombay Presidency, between Poona and Goa) are extolled as samples of the best form of Indian "Home Rule", the fact being that the government of these states became Anglicized under British guidance during long minorities of their native sovereigns. The ordinary sample of Native States is still devoid of any legislative assembly, of independence in the law-courts, of publicity for the acts and aims of the ruling body, and of any liability in the executive to public justice for their public acts. The British Agent or Resident, however, has a sharp eye on all proceedings, and regularly sends in his report to the head-quarters of supreme rule. The amount of progress which has already been made in rational and humane administration within the borders of these states is a very eloquent, wonderful, and enduring testimony to the tact and sagacity of British rulers in India, and to their genius, not only for conquest and mastery, but for the higher and nobler work of guiding and leading mankind on the path of progress to better things than those of the past.

The *Native States* under the *Bombay Government* have an area of 69,000 square miles, and a population of about 8 millions, the chief being *Cutch*, *Kolhapur*, and *Khairpur* (in *Sind*). The *Madras Government* has charge of states with an area of 9600 square miles, and a population of about $3\frac{3}{4}$ millions, the chief being *Travancore* and *Cochin*. Attached to *Bengal* are states with an area of nearly 36,000 square miles, and a population of 3,300,000; the chief being *Hill Tipperah* and *Kuch Behar*. The *North-Western Provinces' Native States* are about 5000 square miles in area, with people to the number of 800,000. In the *Central Provinces*, the figures are 29,500 square miles and 2,160,000 people,

the chief state being *Bastar*. The *Punjab* Government controls States exceeding 38,000 square miles in extent, with over $4\frac{1}{4}$ millions of people, the chief being *Bahawulpur*, 17,300 square miles and 650,000 people, and *Patiala*, 6000 square miles and 1,600,000. The *Central India States* (*Central India Agency* and *Bundelkhand*), with nearly 78,000 square miles and $10\frac{1}{2}$ millions of people, include the important *Gwalior* (nearly 26,000 square miles and $3\frac{1}{2}$ millions), *Rewa* (12,680 square miles and $1\frac{1}{2}$ millions), *Indore* (9600 square miles and 1,100,000), and *Bhopal* (nearly 7000 square miles and 950,000). Of the *Shan States*, on the borders of Burma, Siam, and China, partly independent, partly under British control, the British portion has a supposed area of 40,000 square miles and an estimated population of 2 millions. *Manipur*, in north-eastern India, with 8000 square miles, and a population of about $\frac{1}{4}$ million, under the control, through a Political Agent, of the Chief Commissioner of Assam, consists mainly of a valley situated in the midst of a mountainous country surrounded by Assam, Cachar, Burma, and Chittagong. The hills attain a height exceeding 8000 feet above sea-level, partly covered with huge forest-trees and bamboo-jungle, containing large herds of wild elephants, with tigers, leopards, bears, wild cats, deer, wild hogs, and, in some parts, the wild buffalo and the rhinoceros. The boa-constrictor and other serpents of a formidable size exist, but there are not many poisonous snakes. The religion is a mixture of Hinduism with the olden worship of hill-tribes. The breed of strong, hardy ponies, under 12 hands in height, had long been used by the Manipuris for their favourite game of horseback-hockey, before British officers imported it, in 1863, to Calcutta, whence it was carried to other British places of residence in India, and, about 1870, introduced into Great Britain. In 1891, this little State became notorious for the troubles which involved the treacherous murder, by an usurping Raja, of Mr. Quinton, the Chief Commissioner of Assam, the officer commanding his escort, and other gentlemen, including Mr. St. Clair Grimwood. Our outposts on the Eastern Bengal and North Burma (western) frontier were endangered, but our position was soon vindicated with triumphant success. The retreat of some portion of the troops, in presence of overwhelming force, was distinguished by the heroic calmness, courage, and self-sacrifice of the widowed Mrs. Grimwood, author of *My Three Years in Manipur*. The

usurper and his chief instruments were put to death, and the native government was rearranged under the control of our Political Agent.

The *Rajputana States*, with an area of about 130,000 square miles, and a population of 12 millions, include *Jodhpur* (37,500 square miles and 2½ millions), *Bikaner* (23,000 square miles and 830,000), *Jaipur* (15,300 square miles and nearly 3 millions), *Udaipur* (nearly 13,000 square miles and nearly 2 millions), with minor states in *Bhartpur* and *Alwar*, &c. *Kashmir* (Cashmere), with about 81,000 square miles, has a population exceeding 2½ millions. *Haidarabad* (the Nizam's Dominions) has 82,700 square miles and a population of 11½ millions. *Baroda*, 8220 square miles and nearly 2½ millions. Lastly, *Mysore*, including the British portion of *Bangalore*, has an area of about 28,000 square miles, and nearly 5 millions of people. Among the few large towns of these Native States, we first note *Haidarabad*, to be carefully distinguished from the far smaller town of that name described under Sind. The Haidarabad of the Nizam's Dominions has, with its suburbs, a population well exceeding 400,000. It lies at about 1700 feet above sea-level, in the south-east of the State, 450 miles south-east from Bombay. The city, about 6 miles in circumference, with a stone wall around it flanked with bastions, has a very mixed and warlike population of Rohillas and Arabs, Marathas and Pathans, Sikhs and Turks, Persians and Bokhariots, Madrasis and Parsis. Every man walks the street carrying some weapon, and the military classes go fully armed. The scenery around Haidarabad is picturesque, with many granite peaks and isolated rocks scattered about a hilly region. The *Jama Masjid* or "Cathedral" Mosque is crowned with minarets unusually lofty, and has interior pillars of great height, monoliths of the granite of the land. The British Residency is a splendid structure, connected with the Nizam's palace by a bridge of eight squared granite arches, carrying a roadway 24 feet in width. The portico of the building is approached by a flight of 22 steps, with a colossal sphinx on either hand, and six Corinthian columns, faced with snow-white stone, rise from the summit of the steps to the top of the upper storey. The interior staircase, with each step a monolith of the finest granite, is the best specimen of its class in India, and the whole interior and exterior of the place are adorned with the greatest profusion of the Oriental style in painting, gilding, and other

details. *Bangalore*, the actual capital of the State of Mysore, stands in the centre of the Mysore plateau, 3100 feet above sea-level, 216 miles, by railway, west of Madras. We must note that this place and a small surrounding district, $13\frac{1}{2}$ square miles in all, are British territory, assigned to our possession when Mysore, in 1881, was restored to the native prince. The population (1891) exceeded 180,000. The city contains a fort with an arsenal; a suburb (St. John's Hill, or Cleveland Town) dotted with the cottages of many European pensioned soldiers, the view being topped, in English style, by the spire of the parish-church; many handsome public buildings; Hindu temples and Mohammedan mosques; and seven other churches of divers Christian bodies. The Lal Bagh, a beautiful pleasure-garden, with a fine collection of tropical and sub-tropical plants, has flower and fruit shows at certain seasons, and a weekly gathering of people to hear the music of the band. A large manufacture of carpets, and of gold and silver lace, and leather-tanning, are the chief industries of this prosperous town, noted for its healthy climate, with an excellent system of water-supply and drainage, an annual rainfall of 36 inches, and a death-rate of rather more than 16 per 1000 per annum even in the crowded native town. *Jaipur* (Jeypore), capital of the Native State of that name in Rajputana, has a population of about 160,000, and lies north-east of Ajmir, on the railway from Ahmadabad to Agra. It is the largest town and chief commercial centre of the Rajputana States, and, founded in 1728, is in many points the finest of modern Hindu cities. Placed on a small plain surrounded, save to the south, by rugged hills crowned with forts, the city is encircled by a masonry wall 20 feet high and 9 feet thick, with bastions and towers pierced for cannon, seven gateways, and a parapet loop-holed for musketry. The main streets are wide and regular, and the whole town is laid out on a plan of rectangular blocks, with cross streets and successive intersections, diminishing in width to narrow lanes. The chief thoroughfares are lit with gas manufactured in the suburbs, and are well paved and drained, with a width of 37 yards. This wealthy city, with a great business in banking, has all the institutions of an important British town, including the fine Mayo Hospital, splendid public gardens of 70 acres, and the Maharaja's college, with nearly 700 students, prepared for matriculation at the University of Calcutta.

Srinagar (119,000 people), the capital of Kashmir, on the banks of the Jehlam (Jhelum), lies in the centre of the "Happy Valley" sung by Moore in *Lalla Rookh*, at about 5300 feet above sea-level. Most of the people are Mohammedans; the chief business is in shawls; the place has no architectural distinction. *Baroda*, chief city of the Gaekwar's territory, lies in Gujarat, about 30 miles north of the Narbada (Nerbudda). The population is 116,000, chiefly Hindus, and the place has some fine modern buildings in the Hospital, State Library, Baroda College, and public offices. *Gwalior*, capital of its State, and residence of the Maharaja Sindhia, lying 65 miles south of Agra, is well known to British people at home from the views of its grand fortress on the isolated perpendicular rock, a mile and a half in length and 300 yards broad. The palace, built between 1486 and 1516, with great additions of a later date, under Jahangir and Shah Jahan, shows Hindu architecture of the best style. The new town, called Lashkar, where the Maharaja resides, and the irregular, dirty old town of Gwalior, at the eastern base of the rock, together have about 105,000 people. *Indore*, chief town of its State, capital of the Maharaja Holkar's dominions, is a modern city of 92,000 people, at nearly 1800 feet above sea-level, about 50 miles north of the Narbada in its lower course. The railway connects it with the rest of India; the chief industries are the manufacture of opium, and of cotton-cloth at a flourishing steam-mill. In a recent report the British revenue from about 12,500 chests of Indore-made opium amounted to £873,000 at £65 per chest. *Mysore* (74,000 people), the nominal capital of its State, a few miles south of Seringapatam, is a clean town with broad and regular streets, much improved in sanitary matters by its modern municipal board. *Bhopal* (70,000 people), chief town of its State, lies 1670 feet above the sea, about 100 miles north-east of Indore. The most notable fact concerning the town is the plentiful supply of water, free to all the people for ever, supplied at the cost of a native lady from works in charge of a British engineer. *Bhartpur* (Bhurtpore), with 68,000 people, the capital of its Rajputana State, has been seen by us in connection with the warlike part of our history in British India. *Bhaunagar*, capital of its State, in the British Agency of Kathiawar (Gujarat), is a modern town of 57,000 people, on the Gulf

of Cambay, with a large export of cotton to Bombay, and a spinning and weaving mill. *Bikaner* (56,000 people), chief town of its Rajput State, lies in a dreary, stony, barren region of north Rajputana, and is surrounded by a lofty and massive stone wall $3\frac{1}{2}$ miles in extent. The streets are strangely irregular in plan; the people are engaged in pottery, stone-cutting, carving, and the making of fine woollen blankets. The fort, containing the Raja's palace, a vast structure, presents a grand appearance to the approaching traveller. *Udaipur* (or *Oodeypore*, with a population of 38,000), capital of its State in Rajputana, is one of the most charming places in India, situated about 50 miles east of the centre of the Aravalli Hills. Lying about 2000 feet above sea-level, the grand palace of marble and granite, rising to a height of 100 feet, flanked by octagonal towers topped with cupolas, looks down from a ridge upon a lake facing wooded hills, and from its terrace on the chief (the eastern) front commands a view of the city and valley. The great temple of Jagannath, and the turreted houses of the nobles, cupola-crowned, have a superb appearance above the massive battlemented city wall, to the traveller coming from the east. Water-palaces of marble, standing in the midst of a lake; flower-gardens, fountains, baths, groves of orange- and lemon-trees, with palmyra palms and plantains (banana-trees) overshadowing all, help to form a scene of entrancing beauty not surpassed in the Eastern world. We must refer, before passing on to Burma, to a town of some importance, omitted in the description of places in the Punjab. *Firozpur*, the administrative headquarters of its District, lies about 60 miles south of Lahore, on the old high bank of the river Sutlej, over 3 miles from the present river-bed. During the last half-century, the place has grown above fivefold in population, which numbered, recently, about 40,000, almost equally composed of Mohammedans and Hindus. There is a flourishing trade in grain and other produce, and the well-built town, with spacious streets, contains the usual public buildings, with a memorial church in honour of those who fell, in the first Sikh War, on the battlefields of Mudki (Moodkee), Firozshah, Aliwal, and Sobraon, all lying not very far east or north-east of the town. The arsenal is the chief military storehouse in the Punjab; the garrison generally consists of one British and one Native infantry regiment, with two batteries of artillery.

CHAPTER X.

BRITISH POSSESSIONS IN ASIA—*Continued.*

BURMA, CEYLON, STRAITS SETTLEMENTS, HONG KONG, BORNEO.

BURMA—People—Physical features—Early history—First Burmese war—Rangoon captured and held—Cruelty and perfidy of the Burmese—Second Burmese war—Lord Dalhousie sends an expedition—Lower Burma annexed—Statistics of British Burma—Visit of Lord Mayo to Rangoon—Deposition of King Thebau and annexation of Upper Burma—Products and industries of the country—Administration—People—Education—Revenue and trade—Chief towns. CEYLON—Becomes a British possession—State of the country—Sir Edward Barnes and Major Skinner—Formation of roads, railways, and canals—Geography and climate of the island—Plague of land-leeches—Beauty of the scenery—Flora and fauna—People—Coffee, tea, and cacao planting—Other vegetable products—Minerals—Pearl-fishery—Imports and exports—Revenue—Administration—Education—Chief towns—Colombo. The Maldiv Islands. STRAITS SETTLEMENTS—Divisions—Singapore—Sir Stamford Raffles—Trade and productions of the island—Penang and Wellesley Province—The Dindings—Malacca—Keeling or Cocos Isles and Christmas Island—Population and administration of the Straits Settlements. Native Malay or Protected States. HONG KONG—Early history—Position and features of the island—Progress of the colony—Its extensive commerce—Victoria city—Administration—Education. BORNEO—Area—Vegetation and fauna—People—Labuan—British North Borneo—Protectorates of Brunei and Sarawak—"Rajah Brooke".

BURMA, with an area of 171,500 square miles, and a population reckoned at very nearly 8 millions, is officially constituted as an eleventh Government or Province of British India, with which, however, it is only connected by geographical union on its own western border. The people are chiefly of Indo-Chinese race, with Mongolian features, and complexions varying from clear white to dusky yellow. Their religion is Buddhistic; they have no castes, and no hereditary rank ever existed save in the royal lines, nor any nobility except in the way of official and personal distinctions. The Burmese are distinguished by their delight in all amusements—singing and music; dancing and drama; buffoonery and boat-racing; gambling and gaiety of every kind. In social affairs, the most striking difference between Burmese and Hindu life is found in the Burmese marriage of mutual affection, preceded by courtship in British and American fashion, as contrasted with the unions arranged in India by parents who betroth young boys and girls. The climate is one of abundant sunshine, and with a rainfall, during the south-west monsoon from May till

September, far exceeding that of India. The villages lie chiefly on river-banks, and are composed of wooden huts raised on piles to secure them from the floods. Nearly every village has its Buddhist monastery and a school attached thereto, the monks being maintained by alms willingly accorded in the hope of gaining a better life in the transmigration of souls which is believed to follow the present existence. The wives and daughters are the transactors, in the towns, of business at home and in the bazar, while the men attend, in an easy-going way, to cattle and tillage, fisheries and fruit-trees. The country-side is made gay by the view of the many pagodas adorned inside with painted and gilded statues of Buddha in various sizes, and with outer decorations of gilded pinnacles glittering in the sun.

The central portion of the country, including both Upper and Lower Burma, lies in the valley of the great river Irawadi, of unknown source, reaching the Bay of Bengal by nine principal mouths, enclosing a delta of 18,000 square miles, constantly growing from the vast deposit of silt. Boats can ascend the river for the whole of its known length of about 900 miles, and steamers of light draught can at all seasons make their way to Bhamo, 700 miles from the delta. The largest tributary is the Kyendwen (Chindwin), flowing in from the north about 400 miles from the sea. To the west of this central valley, the Yoma Mountains, from 4000 feet to 7000 in their higher peaks, run down the east side of the narrow coast-territory called Arakan, between the Irawadi delta and the south-east of Bengal; to the north, these mountains are a series of ranges, forest-clad, wild, and little known, connected with the hills of Cachar, Manipur, and the east of Assam. On the east side of the central valley of the Irawadi and its tributaries is the mountainous region of the Shans and other wild tribes. In the southernmost part of Burma, bordered by Siam, the narrow coast-region called Tenasserim runs down as far as the latitude of Ceylon, on the opposite side of the Bay of Bengal.

The earlier history of Burma has little of interest or importance. It is certain that the Buddhist religion was introduced, either from India or Ceylon, not later than the fifth century of our era, and that invasions have occurred, from time to time, of tribes coming from China on the north and Siam on the south. In the fifteenth century, European travellers tell of flourishing trade in Pegu and Tenasserim.

In the sixteenth century, we find Portuguese adventurers as petty rulers or piratical chiefs in Arakan, making themselves and their followers a terror to the peaceful traders in the Bay of Bengal, or aiding native kings in their internecine struggles. In the middle of the eighteenth century, a man of low origin, born to rise and rule, named Alaungpaya, commonly called Alompra, founded a dynasty of Burmese kings, ruling the whole country, with an inland capital at Ava, and a maritime capital, founded by Alompra, at Rangoon. Their government was that of despots of the old Mughal (Mogul) type, living in gaudy state, making progresses through the land, and administering affairs through a complicated host of officials controlling provinces, districts, towns, and villages in downward gradation, all subject to the sovereign's capricious and irresponsible will. When the territories of a tyrant of this class, as ignorant of British character and British power as he was incapable of self-restraint, became conterminous with Bengal, trouble was sure to arise. It was under Lord Amherst, in 1824, in spite of his earnest desire for peace, that the first Burmese War came to pass. In 1823, after Burmese conquest of Assam and Manipur, their general Maha Bandoola, a man of courage and ability, invaded Bengal, cut off a detachment of British sepoy, and forced Lord Amherst to declare war.

A triple invasion of Burma was made, the operations being under the general direction of Sir Archibald Campbell, a distinguished veteran of Wellington's army in the Peninsular War. A force of gun-boats, with sailors, marines, and troops, was sent up the Brahmaputra into Assam. A body of Bengal sepoy, men whom caste forbade to cross the "black water", went by land, through Chittagong, into Arakan. The main expedition sailed from Madras in May, 1824, to the Irawadi delta, under Campbell's immediate command, and Rangoon was taken almost without a blow. We may state at once that this war, lasting for two years, cost the sum of 14 millions sterling, and the fearful number of twenty thousand lives, few in battle, mostly from disease in a pestilential climate where heat and malaria were aggravated by the lack of good sense, most cruel in its effects, which sent the troops forth in stiff, unsuitable apparel, and fed them on salt meat, biscuit, and rum. The Burmese, showing some valour under proper leading, were most conspicuous for their skill and patience in forming

stockades and rifle-pits for defence of their positions, and for their cruel treatment of prisoners and wounded men. Rangoon had been, at the king's command, abandoned by the people, and came into our hands as a place devoid of stores. The rainy season kept the British occupants there for the next seven months, dependent for supplies on ships arriving from Calcutta and Madras, as the jungle swarmed with the native warriors, the villages were strongly defended with stockades, and foraging was thus made a hopeless undertaking. In December, 1824, Bandoola led a force of 60,000 men to assail Rangoon, held by five British infantry regiments, nine regiments of Sepoy foot, and some companies of artillery. Among the British officers was Major Sale, commanding 400 of his own regiment, the 13th Foot, and displaying the determined courage and the skill which afterwards won renown, as we have seen, at Jellalabad in the first Afghan War. A seven days' struggle, of a desperate character, against Burmese artillery and musketry, rifle-pits and stockades, armed boats and fire-rafts, ended in complete victory for the British force and the capture of 240 out of 300 great cannon employed by the foe.

In February, 1825, General Campbell set his troops in motion, by land and water, up the Irawadi, towards Bandoola's new fortified position at Donabew, about forty miles up the river from Rangoon. The main body, however, made towards Ava, and a rash attack, with a detachment, on the Burmese field-works and stockades, was repulsed with loss. The wounded men left behind in a hasty retreat were crucified by the Burmese, and their bodies were sent floating upon rafts down the river. The whole force then assailed the enemy with rockets and shells, one of which killed the Burmese commander, whereupon his men dispersed into the jungle, and a renewed advance gave the British forces, by the end of April, possession of Prome, on the Irawadi about 200 miles from the sea. The rainy season then stayed operations till November, and more Burmese defeats, in our advance upon Ava, brought the British army within fifty miles of the capital. In the spring of 1826, the Burmese monarch came to terms in the Treaty of Yandabu. Assam, Arakan, and Tenasserim were ceded, the king remaining in possession of Pegu and Upper Burma, with the city of Rangoon. A British minister was to reside at the court of Ava; the British head-quarters were fixed at Maulmain (Moulmein) in Tenasserim.

The king and his officials seemed to have quickly forgotten the lessons of the war, and, after the British forces had retired, they refused, in effect, to carry out the stipulation for freedom of British trade in Burmese territory. They specially resented the enforced acceptance of a foreign Resident at the capital of a potentate who styled himself "The Elder Brother of China", and "The Lord who is the Greatest of Kings". A new sovereign, usurping power after slaughter of all members of the previous dynasty in 1837, drove the British minister, by gross and repeated insults, from Ava to Rangoon, whence he was withdrawn in 1840, and for the next twelve years our merchants were made subject to extortion and to much other irritation and wrong. Lord Dalhousie, the last man to neglect the claims of injured British subjects, after vain remonstrance and demand for redress, resolved on war, and an expedition was prepared with due regard to the dangers of the Burmese climate. A parental care on the part of the Governor-General provided bake-houses for a constant supply of bread; abundance of fresh meat; suitable dress; shelter from sun and rain; a hospital at Amherst, on the Gulf of Martaban, on an airy elevation fanned by the sea-breeze; prompt conveyance thither for the sick and wounded. A squadron from Bombay, consisting of 19 steamers with 2300 seamen and marines, accompanied a land-army of nearly 6000 men under the command of General Godwin. In April, 1852, the mouths of the Irawadi were occupied, Martaban and Bassein were seized, and a brilliant feat of arms was achieved in the storming of the almost impregnable temple-fortress at Rangoon. This grand stroke of modern warfare, too little known and valued amidst the other exploits of our army nearer home, was delivered against a force of 18,000 men holding the city and great pagoda, with the aid of the picked guards known as "The Immortals of the Golden Country", men bound to die at their posts rather than surrender or flee. The wives and children of the married men among the mass of the Burmese were held by the king as pledges to ensure their courage, and the unmarried warriors were chained up to the guns and embrasures of the fort. The British column, advancing against a storm of shot, under a blazing sun, up the steep and narrow stairs leading to the three terraces of the pagoda, rushed on with levelled steel, uttering the shouts with which our troops have so often shaken the nervous systems of more formidable foes than the Burmese.

The "Immortals", before the bayonets had touched their skins, fled in terror, but the Governor of Rangoon, from a place of safety, still advised Godwin "to retreat while he could". The city of Prome was captured in the autumn, and, as the Burmese emperor declined to treat, Lord Dalhousie, in December, 1852, proclaimed the annexation to the British empire of Lower Burma, or the province of Pegu, on the lower courses of the Irawadi, connecting our former acquisitions of Arakan and Tenasserim.

In the midst of his sufferings from broken health and over-work, the great Governor-General, in 1852, 1853, and 1855, four times visited Burma, improving and settling the administration of previous and recent conquests. The isolation of Arakan was ended by the formation of a solid military road across the Yoma Mountains to the Irawadi valley, and commercial centres were opened or developed at Akyab, Bassein, Rangoon, and other points. Major (afterwards Sir Arthur) Phayre was made Commissioner of Pegu, and a regular administration was formed, including many Burmese officials in the lower ranks. The new province was cleared of robbers, and a new reign of law and order, an unwonted blessing to the Burmese people, was inaugurated. In 1862, Pegu, Arakan, and Tenasserim became "British Burma", with Phayre as "Chief Commissioner", and the growth of prosperity was such that the Province not only paid its own expenses of rule, but furnished a large yearly surplus to the imperial revenue. The meaning of "peace", to a country of great resources which has long suffered from misrule, is strikingly shown in a few statistics of Burma at this and later times. In 1881, the inhabitants of Rangoon were fourteen times as many as in 1852. Five years after annexation, in the year ending March 31st, 1858, the trade of the port amounted to little more than two millions of tens of rupees; in 1891 it was nearly six times as much for private commerce alone, apart from Government material and stores. In 1855, Amherst district had about 83,000 people; in 1891, they were 417,000. In 1830, Akyab had a yearly trade of £7000; in 1879, its value exceeded two millions sterling, a nearly 300-fold increase in half a century. In 1855, the population of Lower Burma was $1\frac{1}{4}$ millions; in 1891 it exceeded $4\frac{1}{2}$ millions. The history of the world may be challenged for any more striking instance of the benefits of successful war to a conquered people. The secret lies in the fact

that the conquerors, with all their faults, were in this case wise, just, and humane as well as strong, the bearers of a flag that brings in its rear good government and lucrative trade as the sequel of glittering bayonets and bursting shells.

In 1862, a new king of Burma made a friendly treaty at Mandalay with Sir Arthur Phayre; and five years later his successor, General Fytche, concluded a second treaty, which led to a large extension of trade with Upper or Independent Burma, and the establishment of a line of steamers to Mandalay and Bhamo. The first ruler of British India who displayed a special interest in Burmese affairs, after Lord Dalhousie, was Lord Mayo. It was only just prior to his tragical and lamentable end that, in February, 1872, he landed at Rangoon, and was received with loud acclamations from thousands of delighted and excited Burmese, including the strange sight, for the East, of many native ladies, welcoming the Governor-General and his wife with gifts of flowers. Amid the festivities of a week and the personal inspection of the results of twenty years' British rule, Lord Mayo received deputations from all classes of the community, and then, after a hurried visit to Maulmain, he steamed away to meet his fate at the Andamans. In 1885, a new Burmese ruler, King Thebau, a tipsy tyrant who had begun his reign with a family-massacre, brought trouble in his defiant refusal to redress the wrongs of certain British traders, agents of a timber-company at work in his dominions. Summary measures were taken by Lord Dufferin, the Viceroy, and a fleet of war-steamers, with a military force under General Prendergast, moved up the Irawadi to Mandalay. Almost without resistance, the capital was taken; the king surrendered and went a prisoner first to Rangoon, and then to British India, where he became a pensioner of the State. On January 1st, 1886, the annexation of Upper Burma was proclaimed, and the Viceroy, in the following month, went thither to arrange the administration. Great progress has since been made in the whole of Burma. For some years, great efforts were needed for the suppression of dacoits in the newly-conquered territory; some present trouble is that arising from tribes on the Chinese frontier who never were really subject to Burmese kings, and have been wont for ages to come down from fastnesses in the hills to plunder the tillers of the plains. Every cold season, well-

equipped columns of British troops are sent to give lessons in the proper conduct for dwellers on our borders, and the evil is yearly being abated.

Teak and other timber, and bamboos on the hills; rice and tobacco on the plains; mineral-oil in the Irawadi valley; tin and very rich and pure iron-ore in Tenasserim; these are among the chief vegetable and mineral products of Burma. Nearly all the rice used for distillation and starch in Great Britain comes from that country, the annual exports amounting to about 20 million cwts., valued at over 5 million tens of rupees; much of this, however, passes from our shores to continental ports. The forest-trees furnish valuable wood-oil, tannin, varnish, and gums; orchids, ferns, mosses, flowering shrubs, creepers, and trees, give great beauty of form and hue to the jungle-scenes. In the hills to the north of Mandalay, over an area of about 200 square miles, on a plateau 5600 feet above sea-level, are the famous ruby-mines, which yield the finest stones of that class in the world. Jealously guarded from foreign intrusion, and rudely worked in the days of Burmese rule, these mines produced rubies to the known value of about £100,000 a-year, but it is certain that many valuable stones were secreted and sold to European dealers. Farther north still are mines of jade and amber, of which the former precious mineral is exported to China and Japan. Near Mandalay, fine white marble is quarried, and coal, used for steamer-fuel, is obtained in Upper Burma, on the banks of the Chindwin. The fauna include the elephant, rhinoceros, tapir, bison, buffalo, deer in many species, wild hogs, leopards, tigers, and bears. Elephants, ponies, buffaloes, and oxen are used as domestic animals of draught, but there are no horses of native breed, and the donkey scarcely exists in the land. Sheep and goats are rare; poultry abundant and good. The cobra and the python abound. There is a vast variety of birds, including the most brilliant-hued peacocks, golden and silver pheasants, and aquatic fowl of every kind. The abundance and variety of fish in the rivers and coast-seas are prodigious, and a condiment called *nga-pi*, or "pressed fish", is of universal use throughout the country. The chief industries are the weaving of the bright-hued silks worn by men and women on festive occasions; earthenware, lacquered bamboo-ware, wood-carving, gold and silver ornaments, and gongs for the European market. In Lower Burma, the seaports contain

scores of rice-mills for husking the grain and of steam saw-mills for the timber-trade. The women are proficient in rolling the cigars universally smoked by Burmese men, women, youths of both sexes, and young children, and largely exported for Europeans who relish a strong-flavoured "weed".

The river Irawadi, its delta-branches, and its chief tributaries, are main channels of communication between the sea-board and the interior. The "Irrawaddy Flotilla Company", with numerous steamers and "flats", and its head-quarters at Rangoon, competes with thousands of native boats employed in the traffic, and a regular steam-service from the chief port up to Mandalay, Bhamo, and river-stations at various points, conveys imports of British piece-goods, salt, hardware, and rice from the deltaic region. The steam-locomotive has for some years been seen in the land. The Irawadi Valley State Railway, 163 miles in length, runs from Rangoon to Prome, and another line connects the capital of Lower Burma with Mandalay. Very recent extensions of the steel-roadway pass west of the Irawadi up to Wuntho, 150 miles beyond Mandalay, and, on the east, to Bhamo and Myo-haung. A very useful canal, about 40 miles long, has been made between the Sittaung and Irawadi rivers, avoiding the dangerous "bore" of the Sittaung estuary, and opening up a once isolated region. Similar work, with the clearing of blocked-up river-channels, is being executed at various places in the lower Irawadi valley.

For administrative purposes, the whole of Burma is divided into LOWER BURMA, with 4 Divisions (*Arakan, Pegu, Irawadi, Tenasserim*) and 19 Districts, and UPPER BURMA, containing 4 Divisions (*Northern, Southern, Central, Eastern*) and 17 Districts, ruled in the fashion with which we are familiar in connection with British India on the west and north of the Bay of Bengal. The bulk of the people live in over 28,000 villages with a population of less than 1000, and there were, in 1891, only seven towns with a population exceeding 20,000. Of 7,600,000 people, nearly 7 millions are Buddhists; 171,000 are Hindus, $\frac{1}{4}$ million Moham-medans, about 120,000 are Christians, 168,000 aboriginal pagans (of "Animistic religions", or polydæmonistic, magic tribal faiths), with a sprinkling of Sikhs, and some Parsi and Jew traders. It is too early to expect much from British education. Recently, about 227,500 males and 18,000 females were under instruction, and

1½ millions of males and nearly 90,000 females were returned as "literate", or able at least to read, a result which, if it be correct, does credit to the work of the 20,000 Buddhist monks in their schools. These men form an influential and much-respected class, poor and celibate, but permitted to set aside their profession at pleasure, with its vows, its shaven head, and yellow robes, and to return to the world. The land-revenue for a recent year was returned at 2,142,000 rupees out of a total of nearly 5,100,000 rupees, made up from the very low land-tax, customs, excise, forests, capitation-tax, and fishery-rents. The imports of Burma for 1893 had a value of nearly 5½ millions of tens of rupees (10 rupees = 12s. at present reduced value); the exports were worth 9¼ millions of tens of rupees. The extent of the Rangoon trade, now much exceeding that of Madras, is indicated by the fact that in the same year her total imports and exports, in merchandise alone, including re-exports, had a value exceeding 12½ millions of tens of rupees, or nearly five-sixths of the whole Burmese trade.

The chief towns of this rising country are Mandalay, Rangoon, Maulmain, Prome, Bassein, Akyab, and Bhamo. *Mandalay* (population about 189,000), the former royal capital of Ava or Upper Burma, is a quite modern town in a plain near the left bank of the Irawadi. The place is surrounded by a lofty brick wall 3 feet thick, with an earthwork in its rear shelving upwards from 30 feet thickness at the base to 6 at the top. There are flanking turrets at every 200 feet, and three gates in each of the mile-long walls enclosing a square. A moat 100 feet broad, always full of water, surrounds the place, and is crossed by five bridges. A great trade is carried on by the river, and overland to the Chinese frontier. *Rangoon* (about 180,000 inhabitants) lies 21 miles upwards from the sea on the Rangoon river, connected with the Irawadi by a navigable creek. This capital of Lower Burma is a modern town on the ancient site of a city called Dagon, in accordance with the name of the great Shwé (Golden) Dagon pagoda already mentioned. This structure, 320 feet in height, is covered with gilding from base to summit, and is the most venerated of Burmese shrines as containing some hairs and other relics of Buddha Gautama. British rule, since 1852, has given to the place an elective municipal government; regular oil-lit streets, river-embankments, five markets, excellent

water, tramways, fine public buildings, including an Anglican cathedral; horticultural gardens, a High School, a hospital, and ample protection in batteries and forts. *Maulmain* (Moulmein, with 56,000 people in 1891), in Tenasserim, is beautifully placed near the mouth of the Salween river, backed by a fine range of hills crowned by the gilded spires of many pagodas, and displaying the picturesque houses of the wealthier residents. The town is the head-quarters of the Amherst District and Tenasserim Division of Lower Burma, and is well supplied with official, religious, educational, and charitable buildings and institutions. The imports and exports have an annual value of about 2 millions sterling. *Prome*, chief town of its district, with about 29,000 inhabitants, is on the left bank of the Irawadi, 160 miles by railway from Rangoon. Almost ruined by fire in 1862, the place is now a flourishing municipal town. *Akyab* (population about 34,000), a prosperous port on the coast in the north of Arakan, has grown up from the dimensions of a fishing-village in 1826; its enormous increase of trade has been already given. It is a municipality with the usual public buildings. *Bassein*, on both banks of its river in the Irawadi delta, with over 28,000 people, lies 75 miles upwards from the sea. Accessible to the largest vessels, the port has made vast progress since 1852, with a great trade in rice, and imports of manufactured goods, salt, coal, and provisions. Recently the total value of the trade, with a ninefold increase in twenty years, exceeded a million sterling. *Bhamo*, on the left bank of the Irawadi, is the starting-point of the trade-route to China, only 40 miles distant to the east. The place is still small, but probably has a considerable future from the recent extension of steamer and railway traffic. The *Mergui Archipelago*, off the coast of Tenasserim, requires some notice. The more northern islands of this extensive group belong to Burma (Mergui District of Tenasserim Division), and are picturesque territory, with mountains rising to 3000 feet. Generally well wooded, they have small streams of pure water, and a few patches of land under the tillage of that region. The fauna include tigers, the rhinoceros, deer, and snakes; the adjacent seas abound in fish and excellent oysters, many of the shells affording pearls of good quality. The scanty population, a harmless and industrious race called Selungs, barter edible birds' nests with Burma, Malacca, and China in exchange for rice and spirits.

The history of CEYLON down to the year 1801 has been given in a previous section of this work. During the earlier years of British occupation, the natives of the interior, the Kandyans, showed much hostility, and on one occasion a body of our troops was treacherously massacred. In 1815 decisive measures were taken with the King of Kandy, a tyrant of the worst Oriental type, whose cruelties had made him hateful to his own subjects, and who had grossly maltreated some natives under British rule. His chief town was occupied by our forces, and he went as a prisoner to Vellore in Madras Presidency, where he died in 1832. The whole island thus came into our possession, and the Kandyan chiefs, or Highlanders, were pacified by a guarantee of civil and religious freedom, with a declaration of inviolable protection for the Buddhist religion, its priests and rites. At that time, the interior of the country was little known, and in 1817 Dr. Davy, brother of Sir Humphry, met with the utmost difficulties in making an expedition through the island. The greater part of the mountainous centre was impassable, covered with unbroken, impenetrable forest, never trodden by any European. Herds of elephants, bears and tigers, boars and elks were the only tenants of these wilds save savage hordes of the outcasts called Veddahs, of aboriginal descent, some of whom still live in the eastern part of the island. There was no road of any kind, no bridge to span the streams falling in cataracts down the gorges of the hills. In 1817 a rebellion of the natives of the interior caused a two-years' vain struggle to expel British power from their mountain fastnesses.

The beginnings of permanent order and of development of the resources of Ceylon came with the advent to power as Governor of Sir Edward Barnes, who held office from 1820 to 1822 and again from January, 1824 to October 1831. Sir Edward saw at once that, instead of money being yearly wasted on hill-forts and garrisons, a judicious expenditure would open the whole country by military roads which would contribute both to its security and its enrichment. In this great work he and his successors for nearly fifty years were chiefly indebted to the rare ability, perseverance, and energy of the late Major Skinner, C.M.G., who retired in 1867 from service in Ceylon as Surveyor-general and Commissioner of Public Works. In 1819, the year when "Tom Skinner", as this distinguished and most efficient public servant, justly popular with

natives and Europeans, was generally styled, arrived in the island, a lad of fifteen, as ensign in the Ceylon Rifles, the country, never till then surveyed for correct mapping, could scarcely be said to possess a road. He was soon selected by the Governor as the pioneer in the creation of communications for troops and ordinary traffic, and he lived to see, mainly as his own achievement, a splendid network of roads spread over the country from the sea-level to the passes of the highest mountain-ranges. Instead of dangerous fords and ferries, where property and life were often sacrificed, every chief stream in the island had been substantially bridged with structures of stone or iron. In 1867, there were nearly 3000 miles of made roads, one-fifth consisting of first-class metalled highways, and another fifth of excellent gravelled work. The first line of good macadamized road was completed from Colombo to Kandy, a distance of 72 miles, and in 1832 a vehicle which a good authority declares to be "the first mail-coach in Asia" began to run between the towns. In order to complete this subject of communications in Ceylon, we may note that a railway from Colombo to Kandy was opened in 1867, and recently there were 230 miles open for traffic, 39 miles under construction, and 215 miles projected and surveyed; the existing lines are built on a 5-foot 6-inch gauge, all being owned and worked by the Government. Of the 3200 miles of road, more than half are metalled, exclusive of roads within municipal limits. The wear and tear, from traffic and climate, are very great, and no pains and expense are spared in maintenance. Every male inhabitant, between 18 and 55 years of age, is bound to perform yearly six days' labour on the roads, or to make a payment, in different parts of the island, of from one to two rupees. The colony also has 162 miles of canal, and the transmission of news is aided by over 1500 miles of telegraph-wire, with the telephone in Colombo, and by about 190 post-offices of which 34 are telegraphic stations. Under the rule of Sir Henry Ward, from 1855 to 1860 and of Sir Hercules Robinson (1865-1871) and his successor, Sir William Gregory, much good work was done in the construction and restoration of irrigation-works, including village-tanks. Large waste districts in the east and south of the island were thus placed under perennial rice-culture, greatly to the benefit of the people. Sir Arthur Gordon (1883-1890) was most energetic in this direction, restoring

an old aqueduct and its connected channels, along a distance of 54 miles, up to the ancient capital, Anuradhapura. The expense of irrigation is made a regular part of the annual budget, and a large portion of the revenue is yearly devoted to public works of drainage, water-supply, and communication.

When we turn to some account of the geography, scenery, and climate of this very beautiful and productive colony, we find that Ceylon, pear-shaped, or, as the natives love to call it, pearl-shaped in the fashion of one of their elongated gems, stretches due south from off the south-east coast of India to within 6 degrees of the equator, with a length of 266 miles down to Dondra Head, and a breadth of 140 at the widest part, eastwards from Colombo. The area is 24,700 square miles, which means that the island is one-sixth less than Ireland, and about as large as Belgium and Holland together. The channel called Palk's Strait, after one of the Dutch governors, divides the north-western coast from India, with a width of less than forty miles between the western coast of the island of Manaar, off Ceylon, to the mainland. This width is again diminished by over one-half in the outstretching from India of the island of Rameswaram, and the rest of the distance is occupied by the ridge of sand and rocks, about 17 miles in length, called Adam's Bridge, with only three or four feet of water covering it at high tide, and this only in some places. Two telegraph-cables across the strait bring Ceylon into connection with London, and a project has been recently mooted for a railway-line which would bring Colombo into direct communication with all parts of India. The south of the island is mountainous, with one peak about 8300 feet in height, ten mountains (including Adam's Peak, of 7350 feet, equidistant from Colombo and Kandy) exceeding 7000, and over twenty rising to above a mile. An undulating coast-land, of coral formations covered by alluvial deposits brought by marine currents from the Indian shores, runs round the north and north-east. The largest of many fair-sized rivers is the Mahavila-ganga, rising near Adam's Peak, and entering the sea, after a north-easterly course of 135 miles, by several branches near Trincomalee. About four-fifths of the surface of the country are level or undulating.

The climate varies with the elevation, the western and southern coasts having a moist enervating heat throughout the year, with a

range of ten degrees, and a mean of nearly 81. At Kandy, 1665 feet above sea-level, the range is only a little over 4 degrees, with a mean of 76 for the year. At the hill-station of Nuwara-Eliya, about 6200 feet above sea-level, there is a mean temperature of $57\frac{1}{2}$ degrees, and a maximum of 70. The northern and eastern plains have a dry heat, but the sea-breezes render a high temperature much less oppressive than in most parts of India, the cool time being from May to October, when the showers are frequent and the sea-wind steady. The rainfall varies from 30 in the north to above 100 inches on the west coast and in the hills, with nearly double that amount on particular spots. The destructive effects of damp heat and of insects are displayed in the mildew which rots paper and leather, the rusting of iron and steel-work, the fungus which covers all clothes made of cloth, and the attacks made on various materials by ants black and red, termites (the so-called "white ants"), paper-mites, weevils, and enormous cockroaches. Every European house in Colombo has on its staff of servants the "clothes-boy" whose special duty is to air beds, clothes, linen, papers, and other articles every day in the sun, and keep them free from mould. Among the horrors of Ceylon, to people who have lived in temperate climes, are what Haeckel calls "the much-to-be-execrated land-lice, one of the intolerable curses of this beautiful island, of all its plagues the worst". Swarming in myriads in every wood and bush, except near the sea and on the highest mountains, they drop on the head and neck of the passer-by; they creep up his legs, and swell in size, after sucking their fill, from a thread-like creature half an inch long to the dimensions of an ordinary leech. They wriggle through the elastic texture of a stocking, and the only means by which one can be rid of the plague is a drop of lemon-juice, or of carbolic acid, one of which remedies is always carried by prudent persons taking a walk in Ceylon. Fresh bites on a spot already inflamed by leeches may become dangerous to life, and the British troops, in 1815, lost many men from this cause in their toilsome march for weeks through the dense jungle of the damp hill-country as they advanced on Kandy. Leech-gaiters of india-rubber, covering the shoes and secured above the knees, are the resource of Europeans in the districts most infested by these creatures. Scorpions six inches, and millipedes a foot long, both dangerous

in their attacks, with mosquitoes and many stinging flies, are to be reckoned with by visitors in Ceylon.

On the other side of the account, who shall dream of fitly painting in words the charms of scenery in a region that, to the approaching voyager, rises on the view with forests of perennial green, towering grandly up from height to height till they are lost in crowns of cloud or wreaths of mist? Drawing nearer, he gazes on a sea of sapphire blue dashing here against battlements of rock, streaming there with snowy surf over a girdle of golden sands shaded by groves of stately palms of varied aspect in foliage and stem. On the south-west coast, from Colombo to Matura, on the western side of Dondra Head, the densely-peopled, highly-tilled district is one endless village of huts and fruit-gardens, jungle and cocoa-nut groves, bread-fruit and mango, and many other useful and beautiful trees, where the people are lying stretched on benches before their dwellings, idly happy, and naked children are playing in the road. So abundant is the foliage in the gardens round the huts that the stranger would fancy himself in a wild spot of the forest, and in the true forest close at hand, the orchids, lilies, mallows, cloves, and other gorgeous flowering plants make the scene that of a rich and lovely garden. Near Galle, on the south-west coast, the rocks have a wonderful abundance of splendid corals, and the marine specimens are very striking.

The prevailing green hue of Ceylon, with no monotony of effect, but with marvellous gradations and modifications of tone, largely extends to living creatures such as birds and lizards, butterflies and beetles, fishes and crustacea, sea-anemones and sea-worms, while the dark-green forest as a background gives a more vivid splendour to the brilliant reds, yellows, violets, and blues of many insects and birds. Amidst its many charms, the inland scenery displays deep ravines on the slopes of the hills, with foaming streams that often break, in their descent, into cataracts embowered in ferneries and jungle-growths. The Botanical Garden at Peradenia, near Kandy, shows all the best flora of the island in a fine avenue of old india-rubber trees, with their enormous crown of leaves on horizontal boughs spreading from 40 to 50 feet on every side, and their circles of roots, from 100 to 200 feet in diameter, stretching out like huge creeping snakes from the base of the trunk, or rising

erect like the banyan-roots, but growing close enough to form little rooms or sentry-boxes; in clumps composed of every indigenous and of many foreign palms, wreathed with flowering creepers, and with parasitical ferns; in vanilla, orchids, magnificent fuchsias, and other gaudy blooms; and in thickets of gigantic bamboos more than a hundred feet in height, with stems from one to two feet in thickness. The animal world or fauna of Ceylon is disappointing to the zoologist who looks for variety corresponding to that of the vegetation, or for any wealth of ornamental, large, or singular forms. The flying-fox, a large fruit-eating bat, resembling a fox in shape, colour, and size, is a remarkable specimen. The snakes include the deadly cobra; the leopard and bear are the only larger carnivora. The elephant, chiefly a tuskless variety, is found in the forests; deer, buffaloes, and the Indian humped ox are plentiful. Among 320 species of birds, the robin, thrush, and oriole are heard on both hill and plain; eagles, peregrine falcons, and owls; swallows, kingfishers, parroquets, and crows; pea-fowl, jungle-fowl, and countless aquatic birds, including the flamingo, are found. The crocodile haunts the more secluded parts of rivers. There are five species of monkeys, and the mammalia include a very common and charming little squirrel, a friendly and confiding creature, bustling about bush and tree, of a brownish gray, with three white bands on his back. The carriage and riding animals are Burmese ponies or Australian or Indian horses imported from their native regions. Horse-breeding does not succeed, and European horses droop and die. There are no donkeys, and the zebu (Indian humped ox) is used by natives in their carts. Dogs abound, and small black pigs; the goats and sheep are comparatively few; there are abundant cocks and hens, fewer ducks and geese.

The number of people in Ceylon, by the census of 1891, just exceeded 3 millions in the nine provinces, of which the most densely populated are the *Central*, *Southern*, and *Western*. As regards race, the British were 6068; 21,230 were of European descent; 2,041,000 were Singhalese (Cingalese); 724,000 Tamils; 216,000 of other races, including Moormen, Malays, and a few thousands of the decaying Veddahs. Nearly 30 per cent of the whole population are engaged in agriculture; 103,000 in industry (handicrafts); 121,000 in trade. The annual death-rate per thou-

sand in 1892 was 27·2, varying from 19·2 in the Western Province to 56·3 in the North Central, where the whole population is only 75,000. The people mainly of Aryan race, the true Singhalese, descendants of the Hindu immigrants who, in the sixth century B.C., came from the valley of the Ganges and settled in the island, are chiefly found in the south and west. Their language is of Aryan origin, closely allied to the Pali. The men are more comely than the women, and have, in their younger days, a poetical beauty of expression in the finely-cut mouth, and dark inspired-looking eyes, set in an oval face framed by thick long jet-black hair. The limbs are slender, and the whole form is often full of grace as a Greek statue. The dress of males, a waist-cloth much like a petticoat, gives them a womanish appearance which is heightened by the turning-back of the hair from the brow and its confinement with combs, and by the earrings which they wear. The Malabars or Tamils, speaking Tamil, a wholly distinct language from that of the Singhalese, are found in the north and east, and over a large part of the central highlands, being descendants of the conquerors from southern India, chiefly from the Malabar coast, mentioned in our first notice of Ceylon. In stature, features, colour, manners, and customs they show their Dravidian descent, being tall and brawny, very dark in hue, coffee-coloured or blackish, as contrasted with the slighter, smaller, light-brown Singhalese. The people "of European descent" include the class called "burghers", descended from the old Portuguese and Dutch colonists, with some infusion of Singhalese or Tamil blood. Those who are of Portuguese origin are chiefly artisans and tradesmen, while many of the Dutch race rise higher in the social scale and hold responsible official posts, both classes being much employed as accountants and clerks, and as inferior government-officials. The Singhalese are represented by an eminent German naturalist and traveller (Haeckel) as lazy, stolid and indifferent, cunning cheats, and liars of the first proficiency. Crimes of violence are very rare, and their love of music and dancing accords with the usual gentleness and amiability of their character. Major Skinner, with half a century's experience of the country, describes the people as shrewd, clever, and tractable; as quick and accurate observers; as ready to confide in and be guided by rulers whom they perceive to really feel an interest in their welfare, and to be capable of advancing it. The "Moormen"

or "Moors" are the most active and intelligent of the natives, specially sharp in money-matters, and having in their hands a large share of both the wholesale and the petty trade. They are Indo-Arabs in descent, Mohammedans in religion, with a language that is Arabic infused with Tamil. We may note also that the Singhalese, shunning all hard toil, are chiefly engaged in rice-growing, and the planting of palms, bananas, and other trees needing culture, while the sturdy Tamils or Malabars turn to road-making, masonry, and portorage in the low country, and to labour in the plantations of the higher region. In religion, there are nearly one million Buddhists, mostly Singhalese; about 620,000 Hindus, chiefly Malabars; 212,000 Mohammedans, and above 300,000 Christians.

Among the products of Ceylon we turn first to coffee, for the growth of which about 43,000 acres were recently under cultivation out of the (nearly) 2,100,000 acres tilled in the whole colony. The plant is said to have been introduced at an early date by the Arabs, but seems to have been first cultivated in any systematic fashion about 1740, by the Dutch settlers. Little success was obtained, and coffee-planting was only started as a great and lucrative industry when the enterprising Sir Edward Barnes, in 1825, proved that the soil and climate of the hill-country were specially favourable. He formed a plantation near Paradenia, and the forests were soon invaded by an army of coffee-planters, who swept a vast area clear of trees by felling the upper ranks and sending their weight crashing down on the half-severed lower trunks until the whole wood crashed and slipped like an avalanche down into the valley. The burning of this mass of timber produced excellent soil for coffee, and, when large profits had been secured, there was a rush of speculation, a "coffee-mania", which caused the loss of millions sterling, between 1845 and 1850, to those who were devoid of the needful prudence and skill. A revival came in 1854, and the next twenty years were Ceylon's golden age in the coffee-market. Then natural foes—the rat, the coffee-bug, and vegetable parasites—made themselves felt, and sheer destruction came in a microscopic fungus first observed on the leaves of coffee-plants in 1869. This terrible disease, for which no remedy could be devised, spread with such rapidity that the plantations were, on a large scale, uprooted by the owners, and the exports fell from over one million cwts. in 1869, valued at four

VIEW OF A TEA-GARDEN IN CEYLON.

The Pearl of the Eastern Seas, as Ceylon is called, is situated in the Indian Ocean, to the south of the Peninsula, and almost connected with the mainland by a chain of low coral reefs and sandbanks. The soil is extremely fertile, and even in the hill regions the ground is covered by a rich and varied vegetation. Formerly the chief wealth of the island was derived from the growing of cinnamon and coffee, but in recent years there has been a very rapid and extensive development in the cultivation of tea, and the best quality is of exquisite flavour. In plucking the leaf from the plant the thumb-nail is used, and the leaf must not be torn. The garden must be plucked in regular rotation every ten days or a fortnight; and when the plants are flushing well, the coolie (as in the illustration) can bring in to be weighed about 30 lbs. of green leaf in a day.



A. F. MUCKLEY.

VIEW OF A TEA-GARDEN IN CEYLON.

millions sterling, to only 43,000 cwts., worth about £200,000, in 1892. The colony was fortunate in being able to substitute for coffee the plant whose leaves furnish the rival beverage. The progress of tea-planting in Ceylon has been one of the prodigies of modern industry and trade in colonial produce. About 1880, large quantities of Assam tea-seed were being imported from Calcutta, as it had been found that the plant flourished from gardens on the western coast scarcely above sea-level up to nearly 7000 feet elevation. A rush was made for tea-planting; first-class prizes were taken at the Melbourne, Calcutta, and other Exhibitions; Ceylon tea secured British approval; the natives began to drink it largely in place of coffee—in a word, Ceylon tea, in theatrical phrase, fairly “caught on”. The tea plantations now cover fully 270,000 acres; the exports rose from 23 pounds in 1873 to nearly 8 million pounds in 1886, and that to over 82 millions in recent years. As there is no winter in Ceylon to check vegetation, tea is made for market throughout the year. Since the failure of coffee the island has also come into the field of commerce with the material for the third great beverage, cacao or cocoa. Only limited areas of the country are suited to the growth of the *Theobroma cacao*, which needs a depth of good soil, and shelter from the wind, but the Ceylon produce soon fetched the highest price in the market, as equal to the best cocoa from Trinidad, and, with about 20,000 acres under this tillage, nearly 20,000 cwts. are now exported. Rice and other grains, forming the chief food of the natives, along with fish and fruits, are raised on about 720,000 acres of land; 11,500 are under cinchona (quinine), another of the substitutes when coffee failed; and tobacco, mostly consumed on the spot, is grown on about 10,000 acres. The Ceylon cinnamon, known to the Romans through the Arab caravan-traders, and still regarded as the best in the world, is grown on over 40,000 acres, with export valued at nearly £117,250. The cocoa-nut palm trees, chiefly in native hands, create a very important branch of the Singhalese commerce. About 40 millions of trees, on nearly 500,000 acres of land, produced each from 80 to 100 nuts, of which many millions are exported. The chief trade, however, is in the coir, raw fibre, rope, and yarn, and in the oil extracted from the broken shell, the export of which last, of late, exceeded £346,000 in value. The dried kernel, called *copra*, is largely

sent to India for food, and to the British Isles, France, and Russia as food for cattle, and to be pressed for oil.

The minerals include, in small or large numbers, sapphires, cat's-eyes, rubies, amethysts, topazes, and moonstones, and, with a real commercial importance, plumbago or graphite of the best quality, used in making crucibles, stove-polish, lead-pencils, type-metal, and paint. Ceylon furnishes the British Isles with their chief supply, from mines, entirely in native hands, in the Western and North-Western provinces. The industry dates from about 1850, and has had so large an increase of late years that recently the exports of plumbago reached more than 430,000 cwts., valued at £278,000, of which the United Kingdom received about one-third. Excellent iron-ore abounds, but cannot be worked to profit on a large scale from the expense of fuel, and is only used by the natives to a small extent for their own rude implements. The ancient and famous pearl-fisheries of Ceylon are mainly carried on near Aripo, on the north-west coast, in the Gulf of Manaar. They are now a Government-monopoly, the native divers receiving as pay about one-third of the produce. This is of a very fluctuating nature; in 1891, with a very rich result, the public revenue gained nearly a million rupees; in the following year the product was *nil*. We may observe that the weights and measures of this colony are the same as ours at home, and that the coinage is on the decimal system, with the rupee divided into cents instead of into annas and pice. The chief imports are rice and other grain from India; cotton-goods, coal and coke, machinery and iron, salt fish and spirits, to a total value of over £4,000,000. In this trade, Great Britain exported goods to the value of over £1,000,000. The Ceylon exports have now a value of nearly 4 millions sterling, in produce of which the United Kingdom received the worth of over $2\frac{3}{4}$ millions. There is abundant steam-communication by sea through various Ocean-lines, the *P. and O.*, the *Orient*, the *Messageries Maritimes*, the *Austro-Hungarian Lloyd*, the "*Clan*" *Line*, the *Nord-Deutscher Lloyd*, the *British India* (with Mauritius), and others. Recently the revenue just exceeded 18½ millions of rupees, chiefly derived from customs-duties (nearly 4½ millions); sales of Crown-land; licenses (practically the product of tax on spirituous liquors), about 2,200,000 rupees; salt (a Government-monopoly) and timber, 1,315,000 Rs.; port and harbour dues, over

$\frac{3}{4}$ million Rs.; railway-receipts, over $4\frac{1}{2}$ million Rs.; and stamps, nearly $1\frac{1}{2}$ million Rs. The expenditure of $17\frac{3}{4}$ million Rs. included 5 million Rs. for cost of government in civil, judicial, and other establishments; $1\frac{1}{4}$ million Rs. for military charges; nearly 2 million Rs. interest on loans; and over 3 million Rs. on public works, including irrigation. The three municipalities of Ceylon—Colombo, Kandy, and Galle,—and the Local Boards at 13 other towns, raise nearly 2 millions of rupees in rates.

As regards administration, Ceylon is a "Crown-Colony", with a non-representative system of rule which includes the Governor; an Executive Council of five members composed of the Colonial Secretary (also Lieutenant-Governor), the Commander of the troops, the Attorney-General, the Treasurer, and the Auditor-General; and a Legislative Council of 17 nominated members, including the Executive Council, four other officials, and eight non-official gentlemen. The civil law is based on the Roman-Dutch law, much modified by Colonial ordinances; the criminal law has been brought into harmony with the famous Indian Penal Code. The machinery of justice includes a Supreme Court, with decision of appeals in civil and criminal cases; Courts of Requests and Police Courts respectively for minor civil and criminal affairs; and District Courts, with a criminal jurisdiction intermediate between the Police and the Supreme Courts, and a general civil jurisdiction. Village Councils, instituted in 1871, have proved very useful, being well adapted to native character and needs, in local affairs that include improvements, small offences, and petty civil claims. The people have shown themselves to be alive to the value of education. In the higher class, great progress has been made, and many Singhalese gentlemen are in good positions in the legal and medical professions. A Government Department of Education has for about 30 years fostered elementary instruction, with due inspection and "payment by results", and the Village Councils have in many cases undertaken the expense of providing and maintaining vernacular schools, and have even applied the principle of compulsion. In 1892, above half a million rupees were expended on 453 Government schools, and on over 1000 "Grant-in-aid" schools, while about 2400 non-aided establishments give education to 33,600 scholars out of the whole number of 158,500 in 1892, or about 1 in 20 of the population. The "Royal College" is the

Government high school in British culture, with a scholarship of £150 a year for four years awarded to students for education at a British university. Other high schools for British studies receive grants in aid. The standard of proficiency and of due emulation is maintained by annual examinations held in connection with the "Cambridge Locals" and the London University. Agricultural and industrial schools complete the machinery devised for the improvement and welfare of native dwellers in Ceylon. Each of the nine provinces is directly supervised by a Government Agent, with his staff of assistants and "headmen". A large number (about 160) of hospitals and dispensaries, two asylums (for lunatics and lepers), and nearly 150 medical officers, are maintained by the Government at an annual cost of over 880,000 rupees. The whole of Ceylon forms one diocese, that of the Bishop of Colombo, as regards adherents of the Anglican Church, subject to the Bishop of Calcutta as metropolitan. Active work is carried on by the various missionary societies, Anglican and Non-conformist, and by the priesthood of the Roman Catholic Church. The island is garrisoned, under the charge of a Major-General, by about 1650 British infantry, artillery, and engineers, with a force of about 1200 local volunteers. The fine and strongly-fortified harbour of Trincomalee, on the eastern coast, is the head-quarters of our fleet in the East Indies, and the harbour of Colombo, on the south-west coast, is being also protected with earthworks and heavy guns at joint colonial and imperial cost.

Of the Ceylon towns *Colombo*, the capital, has a population of about 127,000. In the fourteenth century it was described by John Batuta, an Arab traveller and geographer, as the finest city of Serendib (Ceylon); the Portuguese changed the Arab designation Kalambu, itself a corruption of a native name from that of the river Kalany, into Colombo, in honour of the great Genoese navigator. The European business-quarter, with the usual public buildings, is called "The Fort", and is surrounded by several suburbs inhabited by the natives. The evening-resort of fashionable people is the broad green lawn of the esplanade called "Galle face", where the long tract of coast towards Galle begins. The Governor's residence, styled "the Queen's House", is a fine spacious structure embowered in tropical vegetation. A suburb called Kolupitya or Colpetty, between the sandy sea-shore and the

highroad to Galle, contains many beautiful villas, with charming gardens, inhabited by wealthy residents; the district extends to the famous groves, now divided into the private grounds of luxurious houses, still called Cinnamon Gardens. A wide lagoon, with many little bays fringed with gardens where the foliage is crowned by the feathery tufts of cocoa-nut palms, affords scope for sailing, and commands a fine view of the distant mountain-chain with the cone of Adam's Peak towering aloft. At the cost of nearly $4\frac{1}{2}$ millions of rupees, a great reservoir has been formed 25 miles away, with pipes conducting the supply of water to a service-reservoir for distribution through the town. Since 1882 Colombo, devoid of a good natural harbour, has superseded Galle as a port of call for steamers and as a coaling-station, and the commerce of the place has greatly increased. The fine natural basin of Galle has its entrance impeded by rocks and coral reefs, and the construction of an artificial harbour at Colombo by means of the great breakwater caused the change. This work, begun in 1874, and completed with a vast expenditure, is composed of a huge mound of rubble brought up to 24 feet below low-water mark, with a superstructure of concrete blocks, each 35 tons in weight, set on edge. The breakwater thus formed runs out from the shore for 1400 yards, with a slight curve at the end, and protects a water-area of 500 acres. Shallow portions of the harbour have been dredged, and 25 large ocean-steamers can now be moored at the buoys in from 30 to 40 feet of water; at low water, a great number of vessels can find from 6 to 26 feet in depth.

Kandy (with 20,000 inhabitants) contains the ruins of the former native king's palace, and a famous Buddhist temple with a much-venerated "tooth of Buddha", a bit of ivory two inches long and one inch thick. The British governor has a residence there; the situation and surroundings of the place in no wise deserve, according to Haeckel, the enthusiastic praise of Sir Emerson Tennent in his delightful and valuable work on Ceylon; the "beautiful lake" is really nothing but a small rectangular artificial "tank". *Trincomalee*, with its grand double harbour on the north-east coast, land-locked and accessible for all craft in all weathers, is a plain modern town with a fine esplanade. The place is unsuited for commercial purposes by lying out of the track of trade, and, with a population of about 11,500, depends chiefly upon its official

residents and naval dockyard. *Galle* (33,500 people), on a low rocky promontory lying west of a bay open to the south, derives its name from the Singhalese word "Galla", meaning "rocks", Ponto Galla, "Rocky Point", being turned into French as "Point de Galle". The fall of this famous, ancient, and important town from its place of pride has been above noted. Two thousand years ago, the Arabian merchant-ships from the Red Sea and the Persian Gulf traded here with the Malays of the Eastern Archipelago. The town, however, still ranks second to Colombo, and is the natural depôt for the export-trade of the rich products of the southern districts. The botany and marine zoology of the shores are very interesting. *Jaffna* (Jaffnapatam), on an island of that name north of Ceylon, with a population of 43,000, is a very ancient town and port inhabited by Tamils (Malabars) and by many people of Dutch descent, the sway of whose ancestors is indicated by the names of neighbouring islands, Amsterdam, Rotterdam, Haarlem, Middelburg, and Delft. *Newera Ellia* ("the city of light"), the chief summer-resort of Ceylon, has been already named. There the houses, situated at over 6000 feet above the sea, have chimneys for the fires that are lighted almost every morning and evening in the living-rooms, for the comfort of dwellers in a climate where the European, worn with the heat of the plains, finds the comfort of cool nights, and sometimes, early in the year, views with delight, if he rise betimes, hoar-frost on the grass, or finds a film of ice on water-jars placed outside to cool. The town stands in an elliptical mountain-valley from one to two miles across, with mountains around that rise from 1500 to 2000 feet above the level of the plateau. The low temperature, at so moderate a height as 6000 feet, in a latitude but seven degrees from the equator, is due to excessive evaporation by day and rapid cooling at night by radiation. The air is always damp, the valley being often filled all day with dense clouds, and the heavy rainfall creating springs and rivulets whose waters run down the slopes, maintain a luxuriant vegetation, and feed the little lake which occupies the southern half of the plateau. Newera Ellia often reminds the British traveller or resident of the Scottish Highlands. It was discovered by some British officers who were hunting elephants, in 1826, and Sir Edward Barnes, on their report, built a bungalow for his own use, and in 1829 opened a sanitarium for the British

troops. The favourite time for visitors is the dry season, from January to April; the south-west monsoon makes it scarcely habitable.

The *Maldives* or *Maldivé Islands*, a coral chain extending for 550 miles, in seventeen groups of several hundred islets, south-west of Cape Comorin, are inhabited by Mohammedans akin in race and language to the Singhalese. The territory is tributary to Ceylon, whither the native Sultan sends an annual embassy. Malé, or Mali, the chief island, where the Sultan lives, is but 1 mile long by $\frac{3}{4}$ mile broad, with a population of 2000. The kindly and well-conducted natives live on imported rice, fish, bread-fruit, cocoa-nuts, and various vegetables and fruits, and they export cocoa-nuts, *copra*, coir, cowries, and tortoise-shell. British supremacy was a transference to us of the former Dutch suzerainty.

The STRAITS SETTLEMENTS consist of Singapore, Penang, Province Wellesley, The Dindings, Malacca, Christmas Island, the Keeling or Cocos Isles, and various "Protected States". Of all these possessions, by far the most important is the island of *Singapore*, 27 miles long and 14 wide, separated from the southern coast of the Malay Peninsula by a strait less than a mile in breadth. With an area of 206 square miles, this charming little territory, partly fringed with coral reefs, presents a coast-line varied by brown rocky cliffs and by grand tropical woods running down to the water's edge, and dipping their foliage in a glassy sea studded with green islets, sun-lit by day and warmed in never-ending summer, perfumed at night by the odours which the land-breeze gently breathes over the waters from the ever-blooming flowers of shrub and tree. The surface of the country undulates in hill and dale, with a natural or cultivated growth of cocoa-nut palms, pine-apples, tapioca, aloes, and Liberian coffee, and fauna that include monkeys, sloths, wild hogs, deer, squirrels, some of the European birds—falcons, owls, partridges, pheasants, woodpeckers, herons and other wading-birds,—with pea-fowl, pelicans, and parrots; and, among reptiles, turtles, crocodiles, and some poisonous snakes. The climate is hot, moist, equable, and healthy, with cool and refreshing nights, and an atmosphere rarely stirred by storms. The mean annual temperature is about 80, and there is no distinction of wet and dry seasons, the annual rainfall of from 90 to 120 inches being fairly distributed over the year.

The modern and only real history of Singapore begins with

the action of that able and enterprising Englishman Sir Stamford Raffles. Born in 1781, a sea-captain's son, off Port Morant in Jamaica, he became an East India House clerk in London, and went out to Penang in 1805 as assistant-secretary. He took an early interest in Malacca, which he visited in 1808; he accompanied Lord Minto, Governor-General of India, as secretary on the victorious expedition to Java in 1811, and was then appointed Lieutenant-Governor of that great island and its dependencies. During his tenure of office until 1816, he gained the esteem and love of the native population, but all his work in Java, so far as the interests of his country were concerned, was undone by the restoration of the territory to the Dutch in 1817. After visiting England for the recruiting of his health, receiving knighthood, and writing his *History of Java*, Raffles was selected to form a new settlement in Singapore, with the double view of checking Malayan piracy, and of entering into commercial competition with the Dutch in that part of the East. In 1819 the town of Singapore was founded on the south-east coast, and five years later the island was purchased from the Sultan of Johore, the ruler of the opposite mainland, for £13,500 paid down, and a life annuity of £5400. A better bargain was never made by Great Britain. In 1824, Sir Stamford Raffles, from a second failure of health, was obliged to start again for England. After escaping, near Sumatra, from a fire on the ship in which he had embarked, and thus losing a fine natural history collection, and linguistic and historical notes concerning the Eastern Archipelago, he reached London to become the first president of the Zoological Society, of which he was a chief founder, and died on the anniversary of his birthday, July 5th, 1826, in the very prime, reckoned by years, of his admirable life.

With a steady growth, and very swiftly of later years, Singapore has mounted to her present height of prosperity as a grand emporium and entrepôt of commerce in the East Indies, the seat of an enormous transit-trade between the British Isles and the east of Asia, and between China and India on the north of the equator, and Australia in the south. This capital of the Straits Settlements, strongly fortified and garrisoned, provided with handsome public buildings and needful establishments of every class, has a mixed population of about 160,000, including about 1300 Europeans, 90,000 Chinese, 25,000 Malays, and 12,000 natives of

India, the diversity of religious faiths being indicated by Chinese joss-houses, Hindu temples, Mohammedan mosques, and two Christian cathedrals. The sea-front, with its three miles of wharves, coaling-station, naval arsenal, commercial docks, four graving-docks, stores, and dwelling-houses, extends over more than six miles of ground, and the place is provided with 12 miles of steam-tramway, telephones, telegraph-cables giving access to all parts of the civilized world, and communications for trade and travel by many lines of ocean-steamers. The island of Singapore produces gambier, or pale catechu, an article greatly used in tanning and dyeing, being a light-brown astringent substance obtained by boiling the leaves of a certain plant. The town has large works for smelting tin mined in Malacca. The imports from Great Britain into the Straits Settlements recently reached a value of nearly £2,100,000, chiefly in coal and manufactured goods. Our imports from the same quarter, in tin, spices, gambier and its allied substance, cutch or catechu, gutta-percha, hides, tapioca, coffee, copra, and sago, amounted to nearly five millions sterling. This, however, gives but a small idea of the trade of Singapore, receiving manufactured goods from the west, and distributing them in the Eastern seas, and collecting produce from all that quarter of the world, continent and countless islands, for transmission to the European, Australian, and American markets. With commerce drawn thither by total freedom from import and export duties, and from every burden on shipping save the trifling tax of 1*d.* per ton register for support of the many lighthouses in those intricate and perilous waters, Singapore alone has yearly imported goods to the value of nearly 21½ millions sterling, while her exports have exceeded the worth of 19½ millions.

An account of *Penang* and *Wellesley Province* down to the year 1801 has been already given. In 1805, Penang became a separate Presidency under the East India Company, ranking with Madras and Bombay. In 1826, Singapore and Malacca were made subordinate to the Governor of Penang; five years later, Penang and Wellesley Province became subject to Singapore, whither the seat of rule was transferred. The island of Penang, officially called Prince of Wales Island, is 15 miles long and from 5 to 10 broad, with an area of 107 square miles, lying off the west-coast of the Malay Peninsula, at the head of Malacca Strait. Three-fifths of

the area is hilly, with a sanatorium on the highest point, nearly 3000 feet above sea-level. Tropical forest and jungle cover the country, with abundance of cocoa-nut and areca palms, the latter producing the fruit whose kernel is called betel-nut because, mixed into a pellet with a little lime, pieces are chewed along with the leaf of a creeping plant, a species of pepper, called betel, whence "Pulo Penang", "Betel-nut Island", has its name. The climate resembles that of Singapore. A strait from two to ten miles broad divides the island from Wellesley Province, which extends for 45 miles along the coast of the mainland, with an area of 370 square miles. Sugar, rice, tapioca, and cocoa-nuts are the chief produce of the latter territory, Penang being still to a large extent untilled. We must mention with these the territory styled *The Dindings*, consisting of the island of Pangkor, about 70 miles south of Penang, and a strip of the opposite mainland, with a total area of 200 square miles. The chief present product in this quarter is the timber hewn by Chinese cutters in the extensive forests, paying a royalty to the British Government. The population of all these territories—Penang, Wellesley Province, and the Dindings—amounted lately to above 235,000, of whom nearly half were Malays, 88,000 Chinese, and 36,000 natives of India. The transit-trade of Penang declined with the rise of Singapore, but the island has a very extensive commerce as a shipping centre for the products of the northern parts of Sumatra and the Malay Peninsula, lately much increased by the development of important tin-mines in some of the central native states. Recently the total value of imports and exports, in nearly equal shares, reached about 16 millions sterling. The capital, George Town, with 26,000 people, lies on the north-east coast, with some forts for the defence of the town and shipping.

The largest of the Straits Settlements is *Malacca*, situated on the western coast of the peninsula, 110 miles north-west from Singapore. The area is about 660 square miles, and the population of 92,000 includes 70,000 Malays, 18,000 Chinese, and 1650 natives of India. The annual value of the trade, in imports and exports, the latter including tapioca and tin, exceeds £600,000. This old European colony in the East, founded by the Portuguese in 1511, under the rule of Albuquerque, was held by them till 1641, when the Dutch drove them out and remained in possession till

1795. Conquered by the British, Malacca was in our hands till 1818, when it was restored to the Dutch. In 1824, it became finally our possession by exchange for the East India Company's settlement at Bencoolen, on the south-west coast of Sumatra. The other dependencies of the Straits Settlements forming part of our Empire in the full sense are the *Keeling* or *Cocos Isles* and *Christmas Island*. The former are a group of coral islets in the Indian Ocean, in 12° s. lat., about 700 miles s.w. of Sumatra. They were discovered by Captain Keeling in 1609, and visited in 1836 by Charles Darwin, who on his observations made there based his theory concerning the formation of coral reefs. A few hundreds of Malays form the population, and the exports consist of cocoa-nuts, copra, and cocoa-nut oil. Formally annexed in 1857, they were placed in 1886 under the administration of the Governor of the Straits Settlements. Pigs, rats, poultry, and abundant crabs are the fauna of the Keelings. Christmas Island, of coral formation surrounded by rocks, nine miles long and about the same in width, lies 200 miles s.w. of Java, and was annexed in January 1889 as a possible station for a telegraph-cable between India and Australia. A settlement from the Keeling Isles has been recently formed.

The whole population of the Straits Settlements in British occupation amounted in 1891 to 512,000, of whom about 3500 are Europeans, about 40,000 natives of India, and the rest equally divided between Malays and Chinese. In addition to a garrison, at Singapore, of infantry, artillery, fortress-engineers, and submarine miners, with two companies of infantry at Penang, the colony has a small force of volunteer artillery, and an armed police force of 35 officers and 2000 men. In 1867, an Order in Council, based upon statute, transferred the control of the Settlements from the Indian Government to the Colonial Secretary, and in 1885 the existing arrangement of affairs was made. The administration is in charge of a Governor and an Executive Council of eight chief officials, including the general officer in command of the troops, and the "Resident Councillors" of Penang and Malacca, who are in special charge of those territories. Municipal bodies, partly chosen by ratepayers, partly nominated by the Governor, direct local matters in each separate settlement. The Legislative Council, with the Governor as president, consists of 10 official and 7 non-

official members, five of the latter nominated by the Crown and two chosen by the Chambers of Commerce at Singapore and Penang. There is the usual apparatus for the administration of civil and criminal justice, controlled by a Supreme Court with a Chief Justice and three Puisne Judges, the law being that of England in 1826, modified by Indian Acts passed prior to 1867, and by local statutes made since that date. For the settlement of maritime matters a Vice-Admiralty Court sits at Singapore and Penang. The annual revenue, mainly derived from stamps and licenses for opium and spirit dealing, is about £800,000, with an expenditure of about £750,000, largely devoted to public works and military charges. There are nearly 200 schools, partly supported by the Government, with about 11,500 pupils in attendance. The rapid increase of trade in late years has now placed the Straits Settlements in the first rank among our "Crown Colonies", apart from India.

The importance of our position on the eastern side of the Bay of Bengal is heightened by our recent connection with the Native Malay States. To the north of Singapore, the State of *Johore*, with an area of 9000 square miles, a population of 300,000 in Malays and Chinese, and a fair trade of the usual kind in that region, passed, by a treaty made with the Sultan in 1885, under British control as to foreign policy. It was anarchy in the native states of the Malay peninsula, dangerous to British interests and detrimental to trade, which caused an interference leading, in and since 1874, to a settlement by which Residents, with a staff of British officials, advise the native rulers and have a share in the executive government. *Perak*, *Selangor*, and *Sungei Ujong* are in this sense, as "Protected States", under the control of the Governor of Singapore. *Negri Sembilan*, a confederacy of several petty states, is in the same position, and *Pahang*, the largest of all, on the eastern half of the lower Malay peninsula north of Johore, completes the list. The total area of these territories amounts to 35,000 square miles, with a population of over 400,000. A railway-system is begun for the development of their resources, which include tin, largely worked in Perak and Selangor, cinchona, pepper, gambier, coffee, rice, and tea. The progress already made in these States is another triumphant proof of the benefits of the British influence which has turned pirates and banditti into peaceful tillers and

traders; has enlisted Malay rulers in the cause of civilization; has abolished wars, made jungle-tracts into good roads, opened mines, created ports, rendered rivers navigable, cleared forests for the culture of paying produce, and thereby vastly increased the sum of human happiness, and opened a bright prospect in a region of long-standing misery and trouble. The present Sultan of Perak, part-ruler of a territory where, in 1875, the first British Resident, Mr. J. W. Birch, was murdered by the Malays, has been conspicuous for his justice, liberality, and diligence in affairs, by which he has won the love of subjects whom his predecessors pillaged and debased by their example of a wicked life. For the peace, order, and prosperity which are now enjoyed in that quarter of the world the natives and British and foreign traders are largely indebted to the policy initiated by Sir Andrew Clarke, Governor at Singapore in 1874, approved by the Earl of Carnarvon, Colonial Secretary at that time, and steadily and ably carried out by Sir William Jervois, Sir Frederick Weld, and Sir Cecil Smith, as Governors of the Straits Settlements, and by the zealous, energetic, and conscientious men who, under them, have been acting as our Residents in the Native States. It is in such work that Great Britain has won, and is winning, a renown of the noblest and most enduring kind, unsullied by any of the acts that sometimes deface extensions of political sway.

In the year 1841, HONG-KONG (properly *Hiang-Kiang*, "sweet waters", from the abundance of good springs) was a desolate island thinly peopled by fishermen. Occupied by British forces in the First Chinese or "Opium" War, the place was finally ceded to Great Britain, in August, 1842, by the Treaty of Nankin, and in April, 1843, a royal charter constituted the "Colony of Hong-Kong". In 1861 the territory, which includes several neighbouring islets, was completed in the cession of the little peninsula of Kowloon, on the opposite Chinese mainland, by the Treaty of Tien-tsin, closing the Third Chinese War. The island of Hong-Kong lies off the south-eastern coast of China, about 12 miles east of the entrance to the Canton River, and 90 miles south-east of that great southern capital of the Chinese Empire. The land consists of a rocky ridge extending east and west, with broken and abrupt peaks rising, in the one called "Victoria Peak", to nearly 1900 feet above sea-level. Eleven miles in length from east to

west, and from two to five in breadth, with a very broken outline on the south side, the island has an area of over 29 square miles, and is thus nearly half the size of Jersey. The strait on the north-east, the Lyeemoon Pass, is not half a mile across; to the north, at the centre of the island, the sea widens out to three miles as it runs up into Kowloon Bay; towards the north-west, narrowed again by the descent of the Kowloon peninsula, the passage is but a mile across, and then it opens out again towards the entrance of the Canton River. It is this formation of coast-line which makes, on the north-west, Hong-Kong Road, with Victoria Bay on its south side, one of the finest harbours to be found, landlocked against the winter north-east monsoon and the worst violence of the typhoons which now and again devastate the shipping of those Eastern waters; with holding anchorage and ample depth over ten square miles; with all requisites for commercial convenience and safety in a space fit to hold the navies of the world. To this noble haven Hong-Kong largely owes her grand position as a centre of Eastern trade and finance, and as a coaling and naval station of the highest rank. The grey and red granitic rocks of the island afford little scope for vegetation, but their stern aspect is relieved at various points by orchids and ferns of divers species; by the indigenous camellia, azalea, and hibiscus; by young trees of British planting on the western slopes; and by coast-patches of yams, sweet potatoes, and rice. The fruits include mangoes, oranges, and pears; the fauna comprise the ant-eater, some poisonous snakes, the land-tortoise, many game-birds in the marshes, termites ("white ants") and many other insects. The rainfall during the wet season, from May to October (the south-west monsoon), averages 100 inches; the temperature, ranging from 44° to 94°, has a mean annual height of 75°. The moist heat of the summer-months, as above, is very trying in the north, where most of the people reside, from the protected position which gives calmness to the sea in shutting off the cooling south-west wind. The winter months (of the north-east monsoon), from October to March, are very pleasant and healthful in their clear skies and invigorating breezes. Europeans suffer from dysentery, fever, and disorders of the liver; the Chinese from small-pox; and Asiatic cholera is not unknown.

The progress of the colony, in its earlier years, was very slow,

but the freedom of trade had its influence in due time, and the streams of Chinese emigration to California, after the discovery of gold in 1849, and to Australia, after 1851, passed through Hong-Kong, caused the fitting-out of ships and the sale of stores, and gave a decided impetus to the local trade. The population increased from 5000 in 1841 to 24,000 in 1848. In seven years more (1855), the people exceeded 72,000, and the growth of revenue by that time made the colony self-supporting, and enabled the British rulers to effect great improvements at the harbour in reclaiming land, building a massive sea-wall, and thus providing sites for an extension of trade-buildings. In 1854-56 troubles at Canton, ending in the destruction of foreign places of business ("factories"), drove much foreign trade from that port to Hong-Kong, and from that time the future of the colony was secure. She became the centre of postal, banking, and exchange dealings for Chinese trade with all quarters of the globe, and a further impulse came, after our latest Chinese war, in the opening of many fresh ports to European commerce. The opening of the Suez Canal (1869) was an epoch in the commercial history of Hong-Kong as well as of Bombay, and for many years a constant outflow and inflow of Chinese emigrants to, and labourers returning from, scenes of foreign industry, has added to the business of the thriving port. The population, in 1881, exceeded 160,000; in 1891, including the military and naval establishments, there were about 8500 whites, and 213,000 coloured people, nearly all Chinese. Apart from the garrison of nearly 3000 men, including many Indian troops, the Volunteer Artillery (100 effectives), and 750 police (of whom nearly half are Sikhs and Chinese), nearly half of the resident white population are Portuguese, one-third British, and the rest German, American, French, Spanish, Italian, and of a dozen other nations. In the world of Hong-Kong the Chinese now hold a very prominent place. Recently, out of the 20 chief mercantile firms, the largest tax-payers in the colony, 17, including the four largest, were Chinese. Only three were European, Messrs. Jardine, Matheson, & Co. coming about fifth on the list, and one of the two others being the great Anglo-Jewish house of the Sassoons. The shrewd money-making wearers of the pigtail have also an important position as bankers, stock-brokers, insurance agents, and owners of real property. The anchorage is protected by

powerful batteries, and, as the head-quarters of our China Squadron, and for mercantile purposes, the harbour possesses five docks and three slips furnished with all necessary equipment for overhauling and repairing men-of-war and merchant-vessels. As regards communications, telegraph-cables to Shanghai and Singapore, and the steamers of great Ocean-lines give access to all parts of the world.

It is in commerce, as already indicated, that Hong-Kong finds its one great source of business and wealth. It shares with Singapore the maritime and commercial command of the far East. Nothing hampers the enormous trade of a free port possessing every facility for quick despatch; of a vast shipping-centre that is at once a terminus and a point of junction for the vessels of great steam-navigation lines, a port of call for ships proceeding to countless places east and west, an entrepôt for the discharge and receipt of cargo, a spot for landing and taking up passengers, a great distributing emporium of traffic conducted by countless native junks and boats with the teeming mainland of China from Canton northwards to Swatow, Amoy, Foo-chow, and Shanghai. Outside of Great Britain, there is scarcely any part of the world where so many noble ocean-steamers can be seen as those which connect Hong-Kong with Europe, the Pacific coast of North America, India, Japan, and Australasian ports. The value of the annual trade cannot be precisely given, in the lack of official returns due to the absence of a custom-house. British imports from Hong-Kong recently reached a value of £836,000; our exports thither were worth about £1,800,000. Our imports chiefly consisted of tea, silk, and hemp, the Chinese trade in the two former articles being largely controlled by Hong-Kong firms; the exports were mainly cotton goods (over one million sterling), woollen ($\frac{1}{4}$ million), and about £160,000 worth of copper, iron, and lead. These figures, however, give but a faint idea of the commerce of Hong-Kong, which is mainly carried on with India, China, and the Straits Settlements. In the year ending March 31st, 1891, the Indian imports reached nearly 2 million Rx. (tens of rupees); the exports from India to Hong-Kong in opium, cotton twist and yarn, and minor matters, amounted in value to about $9\frac{1}{2}$ million Rx. The trade with China cannot be estimated, but it must be of very great value from the facts that in 1892 nearly 23,000 junks, of over 1,600,000 tons in all, entered the ports, and that the colony had then native vessels to the number of

52,000, with a total tonnage of 1,300,000. Recently the whole trade with the Straits Settlements reached a value of nearly 25 million dollars (each=3s.). To sum up, the annual value of the whole imports and exports passing through Hong-Kong may be fairly put at 45 millions sterling, and the shipping "entered and cleared" amounts to nearly 15,000,000 tons, about 8 millions of which are British vessels.

The city of *Victoria*, the capital, containing with its suburbs above 200,000 people, is one of the finest cities of the East, extending for four miles along the base and partly up the slope of the hills facing the sea on the south side of the harbour. The place has stately and substantial buildings of granite and brick, and regular, neatly-kept streets shaded by well-grown banyan-trees. Omnibuses run from east to west, and a cable-tramway, opened in 1888, ascends the hill behind the town to the residences of the chief inhabitants. Nothing can be more picturesque than the aspect of the harbour to the traveller from the West as the steamer draws near and gives sight of many hundreds of junks lying in rows, some laden and preparing for the voyage as the crews propitiate the powers above in beating gongs, firing crackers, and burning coloured papers and scented sticks before the idol in the joss-house on deck; while others, moored along the sea-wall, are receiving or discharging cargo by the toil of lines of coolies, walking in pairs, with bamboo-slung packages on their shoulders. At a distance lie the mighty ocean-steamers, flying the flags of the greatest nations on earth, some surrounded by scores of flat-bottomed native boats, bringing or receiving goods. The man-of-war anchorage, in another quarter of the spacious roadstead, shows ships of several naval powers.

The administration of affairs, as usual in a Crown Colony, is placed in the hands of a Governor and an Executive Council, here composed of six chief officials. The Legislative Council, with the Governor as president, has six official and five non-official members, three nominated by the Crown (one of these being a Chinese gentleman), one by the Chamber of Commerce, and one by the Justices of the Peace. The courts of law are a supreme court, a police-magistrate's, and a marine magistrate's tribunal. The law is mainly the English Common Law, modified by colonial statutes and regulations. The revenue, now over 2 million dollars, is

mainly derived from municipal rates, opium and other licenses, land-rents, and stamps; the expenditure, largely devoted to the strong police-force and military charges, somewhat exceeded the public receipts, but the colony, with a debt of £200,000, incurred in 1887 for defensive works, and for water-works and other sanitation, is thoroughly solvent on a comparison of liabilities and assets. The Bishop of Victoria presides over the ecclesiastical affairs of the Anglican Church; a Vicar-Apostolic represents the Church of Rome. In educational affairs, we find 36 free Government schools, strictly secular, in six of which English is taught, and 76 grant-in-aid schools (64 free) of a denominational character, conducted by ten different Missionary Societies. Recently about 7200 children were on the rolls in the whole colony, besides nearly 2000 in 109 private schools, mostly Chinese, not aided or inspected by the department controlled by the Inspector of Schools. Three different dialects of Chinese, with English and Portuguese, are taught in the important and flourishing Victoria College, formerly styled the "Central School". This establishment was founded chiefly in order to furnish a sound middle-class European education to Chinese pupils, and the benefit is greatly valued by the Chinese community, who seek for their sons, in a knowledge of English and of Western ideas, an adaptation for employment in superior capacities connected with the European community. There are now about 1000 scholars on the college-roll, of whom eight-ninths are Chinese. The cost of the college is defrayed by a rate of only one half per cent on the house-rental of the colony. At the last distribution of prizes, by Sir William Robinson, K.C.M.G., Governor of Hong-Kong, it was stated that six out of eight candidates had passed the Oxford Local Examinations, and that the older Chinese boys are beginning, through the Governor's special interest and influence in the matter, to take the physical exercise in sports which their national prejudice has regarded as undignified. The younger Chinese lads are devoted to the games, sports, and drill of the college. There are scholarships, founded by the Government and by private beneficence, for the promotion of higher culture. The list of educational institutions is completed by mention of a Police-school, a reformatory, a Government Girls' School, a school for industrial education, and a medical college for Chinese students.

Our last flight in the East, before we start for Africa, conveys

us to the vast island of BORNEO, third largest in the world, ranking next to Australia and Papua or New Guinea. No general description of that great territory can here be given, and it must suffice to state that little of its area (284,000 square miles, or nearly six Englands) is fully surveyed; that it is chiefly mountainous, with one peak in the north measured as 11,500 feet in height; that there are abundant rivers, most luxuriant tropical vegetation, with nearly every product of the Eastern Archipelago, and fauna which include the orang-outang amongst the monkeys, the tapir, wild swine, the small Malay bear, a small kind of tiger, wild oxen, deer, the rhinoceros in the north-west, the elephant in the north, with eagles, vultures, peacocks, flamingoes, pheasants, pigeons, parrots, and the kind of swallow that makes the Chinese dainty, edible birds'-nests. Crocodiles swarm in rivers, lakes, and lagoons; the coasts teem with fish, tortoises, oysters, pearl-mussels, and trepang. Countless gorgeous butterflies and moths flit about; minerals of many kinds, including diamonds, gold, coal, and platinum, are found. Most of the people are the aboriginal heathens called Dyaks, divided into many tribes, an intelligent, ingenious, hospitable, honest race, whose chief weapon, both for hunting and war, is the blowpipe expelling a small arrow pointed with sharp fish-teeth and poisoned with upas; shot with great accuracy, and fatal to man at forty yards, if the juice be fresh. As incorrigible pirates, the sea-board Dyaks long had great renown. The rest of the people, supposed to be two millions in all, are Mohammedans ("Malays") and the ubiquitous Chinese. The Dyaks are now mainly inland tillers of the soil, and gatherers of resin, gums, rattans (walking-sticks made from a kind of palm), gutta-percha, and wax. The Malays dwell on the coast and make a living as sailors and in trade, or, with little farms and gardens round their huts, combine cattle-rearing and fishing with the tillage of the soil. The Chinese pursue their way inland, engage in mining and trade, make their "pile", and return to lay their bones in their native land. There is no single native name for the whole great region of which the north-western part alone is properly called "Borneo" (Burnei or Brunei). By far the greatest part of the island—the west and south and east—is under the direct or indirect control of the Dutch, who there, as in so many other quarters of the East, succeeded the Portuguese as European occupants.

In dealing with British possessions, we come first to the island of LABUAN, on the north-west coast, with an area of about 30 square miles, and an estimated population (1891) of 6000, mostly Malays, with some Chinese traders and 30 Europeans. The chief town, Victoria (1500 people), has an excellent harbour, from which exports of Borneo produce in sago, gutta-percha, india-rubber, camphor, rattans, tortoise-shell, beeswax, pearls, and edible birds'-nests have now a value of £55,000, being chiefly sent to Singapore. The imports, mainly of manufactured goods, were worth about £87,000. The island was ceded by the Sultan of Brunei in 1846 with a view, on his part, of being aided by the British in the suppression of Malay piracy. Our objects included the working of the excellent coal which exists in vast abundance, but the enterprise has not been hitherto very successful, though about 10,000 tons were raised and sold in 1890, and a new Company (the Central Borneo), having made a tramway from the coal-fields to the wharf at Victoria, seem likely to do well where others have failed. The territory of this little "Crown Colony" was placed recently under the management of the British North Borneo Company.

BRITISH NORTH BORNEO is the name of a territory in the extreme north of the island, having an area of about 31,000 square miles, with a capital town, Elopura or Sandakan, on the north-east coast, containing about 6000 people. The whole population may number 200,000, Mohammedans, Dyaks, and Chinese. This recent and rising British colony is interesting as being a revival, in Victorian days, of Elizabethan and Stuart methods of founding settlements beyond the seas. In 1881, a royal charter, with the full approval of both Houses of Parliament, conferred territorial rights in this region on a Company started by Sir Alfred Dent, with Sir Rutherford Alcock as the first chairman. The authorized capital was two millions sterling; the object of the association was to develop the great natural resources of Borneo in the most favourable part of the island, where there is an easy command of Chinese labour in any amount, and where little danger exists from typhoons, and from the earthquakes which sometimes devastate the Spanish settlements in the Philippines and the Dutch possessions in Sumatra and Java. The climate is of an equable tropical character, with a range of temperature from 70° to 93°, and an annual rainfall of 120 inches, chiefly during the north-east monsoon,

from October till April. To the produce already indicated, we may add valuable timber, rice, pepper, and tobacco. Enterprise and energy are well enlisted in the service of an undertaking which promises great results in a not distant future. About one million acres have been already leased out for planting purposes. The value of the imports and exports, chiefly passing through Singapore, is now more than 3 million dollars. The country is a British "Protectorate" since 1888, the rule thereof being in the hands of a governor in Borneo and of the Court of Directors in London. The law administered (with a special court for Mohammedan suitors) is chiefly that of our Indian criminal and civil codes, modified by local ordinances. The revenue is derived from import-duties, royalties on exports, stamps, licenses on sale of spirits, opium and tobacco, and from the sale and rent of land. About 400 armed police are commanded by European officers. The course of post from London, by way of Singapore, does not exceed 30 days, and the state has joined the Postal Union.

The account of British dominion and influence in Asia closes with the Protectorates of Brunei and Sarawak, adjacent to North Borneo. *Brunei*, with an area of about 3000 square miles, on the mainland due south of Labuan, is the remnant of an olden powerful native state which once included much of Borneo. The products are the same as those which have been already given, and the trade is chiefly carried on with Singapore. In 1888, a treaty was concluded with the Sultan of this territory by which British protection is secured in consideration of our right to control the succession to the throne and foreign relations, and to appoint consular officials at discretion. At the same time, and on the same terms, a British Protectorate was constituted in Sarawak, a state the mention of which brings before us a notable historical personage, "Rajah Brooke". James Brooke, born at Benares in 1803, entered the East Indian army in 1819, was seriously wounded in the first Burmese War, came to England on long leave, and quitted the service in 1830. By nature an adventurous spirit of the type set forth in *Westward Ho!*, Brooke burned with a desire to carry British civilization into the Eastern Archipelago, paving the way thereto by extirpation of Malay piracy in those waters. In 1835 his father's death gave him possession of the needful pecuniary resources, and three years later his schooner-yacht

landed him on the north-west coast of Borneo. Help against rebels won from the Sultan of that part of the island the title of "Rajah and Governor of Sarawak", the duties of which post were assumed in 1841. The system of rule was reformed, free trade was established, and piracy was attacked with vigour and success. In 1848, on returning to England, and being welcomed at Windsor Castle, he became Sir James Brooke, K.C.B., and on our purchase of Labuan he was appointed Governor of the island, and British Commissioner and Consul-General for Borneo. The independence of Sarawak was in due course recognized by the British Government, and the country prospered in such wise that long before the Rajah's death, in Devonshire, in 1868, the chief town, *Kuching*, about 20 miles up the Sarawak river, had risen from a population of 1000 to 25,000, and the state was sending large exports to Singapore. Sir James was succeeded by his nephew, Sir Charles J. Brooke, G.C.M.G., who rules a territory exceeding 40,000 square miles, to the south-west of Brunei, with a population of 300,000. Coal is mined to the amount of 10,000 tons a-year on the coast near Labuan, and gold and antimony are obtained in paying quantities. The exports, of the usual kind from Borneo, here including coffee, timber, and tea, have an annual value of £300,000, with imports worth about $\frac{1}{4}$ million sterling. Kuching has good public buildings, an excellent museum of Borneo products, and Catholic and Protestant mission-schools. The Bishop of Singapore, Labuan, and Sarawak is the head of Anglican Church affairs. The many rivers afford internal communication by rowing and sailing-boats, and by steam-launches, and there are regular trading-vessels between ports on the coast and to Singapore.

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